



THESE AREN'T HUMAN

But they look enough that way to fool almost everybody. They are footprints in sandstone, made ages ago by a still unknown animal in the late Coal Age. These prints are among those studied by Prof. W. C. Burroughs of Berea College, Ky.

If this was an amphibian it must have been a giant of its kind.

A further puzzling fact is the absence of any tracks of front feet. The tracks, apparently all of the hind feet of biped animals, are turned in all kinds of random directions. At Berea, two of them are side by side, as though one of the creatures had stood still for a moment.

A half-track vanishes under a projecting layer of iron oxide, into the sandstone.

So the riddle stands. A quarter of a billion years ago, this Whats-it That Walked Like a Man left footprints on widely scattered sands that time hardened into rock. Then he vanished. And now scientists are scratching their heads.

Science News Letter, October 29, 1938

MEDICINE

Human Cancer Transplanted Onto Rabbit Eyes for Study

Experiment May Determine Whether Protein Continues To Be Human or Takes on Rabbit Characteristics

CANCER from a woman's breast grafted successfully onto eyes of rabbits has opened new research vistas in the anti-cancer fight that make Rockefeller Institute for Medical Research scientists say frankly they have a new technique of "unlimited possibilities."

This may be the step toward solving the problems of cancer's cause, growth and immunity.

Dr. Harry S. N. Greene of the Rockefeller Institute laboratories announced to the scientific world (*Science*, Oct. 24) his success in transplantation of hu-

man cancer to animals.

"We hope to learn something about the specific nature of the protein involved in cancer," Dr. Greene said enthusiastically when interviewed by Science Service. "We want to know whether after the transfer the protein continues to be human or whether it takes on rabbit characteristics."

"If we can immunize a rabbit against human normal tissue and the transplanted cancer continues to grow, we will have taken a long step toward the understanding of cancer."

Dr. Greene made it clear that the present research is aimed at the cause and not directly at the cure of this dread disease.

Several other investigators in the past have claimed to have performed transplants from humans to animals but their work has not been widely accepted. In Dr. Greene's experiments, the human grafts took in 7 out of 12 rabbits. The human cancers have grown in the rabbits slowly but progressively for more than 80 days. Some of the cancers have multiplied themselves until they are five times original size.

Rabbit tumors have been transplanted onto the eyes of guinea pigs and serial transplants have been made by Dr. Greene through three generations.

Dr. Greene suggests that "it seems highly probable that human tissues can be maintained indefinitely in the foreign host."

Science News Letter, October 29, 1938

PHYSICS

New Cosmic Ray Studies Show Huge Bursts of Energy

TREMENDOUS bursts of atomic energy, caused when cosmic rays come down to earth, may scatter atomic debris over a room some 65 feet on a side, it is concluded in new cosmic ray studies (*Nature*, Oct. 15).

Physicists of the University of Manchester, Drs. L. Jánosy and A. C. B. Lovell, report studies in which they made cosmic ray bursts, or showers as they are called, take their own pictures in a cloud chamber. Only when cosmic ray particles set off "trigger" mechanisms placed over 15 feet apart were photographs of the tracks taken.

Some of the bursts of atomic catastrophe contained 30,000 separate tracks, they estimate. They conclude that the total energy of a single burst could be as high as 10,000,000,000,000,000 electron volts.

This energy, of 10,000 trillion electron volts, far surpasses any efforts of man to create high energy with machines.

The peak energy now obtained from atom smashing machines like cyclotrons is less than 15,000,000 electron volts. Even the great cyclotron now being built for Prof. E. O. Lawrence at the University of California will yield particles having energies of only 50,000,000 electron volts.

At 10,000 trillion electron volts, the cosmic ray energy is something like a billion times greater.

Science News Letter, October 29, 1938