

stance, equal energies of the line in the ultraviolet spectrum known as 2967 Angstroms cures in half the time required by lines 3025 or 2537.

Elephants Are Cooler

The body temperatures of elephants are on the average more than a degree cooler than the temperature considered normal for healthy, human beings. Drs. Francis G. Benedict and Robert C. Lee of the Carnegie Institution's Nutrition Laboratory at Boston reported that the elephant's body temperature is 35.9 degrees Centigrade (96.6 degrees Fahrenheit). Standard human temperature is 37 degrees Centigrade (98.5 degrees Fahrenheit).

Infantile Paralysis Study

The tough and knotty question of immunity or resistance to dreaded infantile paralysis was discussed by Dr. Simon Flexner of the Rockefeller Institute for Medical Research, New York City. Very few persons ever suffer a second attack of infantile paralysis, he pointed out, the majority apparently acquiring immunity to it through the first attack. This is peculiar because the virus of the disease enters the body through the nose and uses the nerve of smell exclusively to reach the brain and spinal cord, Dr. Flexner said. Unlike other disease-causing agents, the infantile paralysis virus never comes in contact with the blood, although it is in the blood that immune substances are developed to protect man and animal from infectious disease. By re-infecting monkeys that have recovered from one attack of infantile paralysis, Dr. Flexner hopes to discover the body's mechanism for acquiring immunity to the disease.

Energy in Yellowstone

An enormous store of energy exists beneath the surface of Yellowstone Park, Dr. Arthur L. Day, director of the Carnegie Institution's Geophysical Laboratory, told the Academy, in a lecture upon the famous hot springs of that national park. For the first time two borings have been made for information as to the actual conditions below ground. In one of these a temperature of 401 degrees Fahrenheit (205 degrees Centigrade) and a steam pressure of more than 300 pounds was developed at a depth of 250 feet.

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Rats live in colonies of 10 to 100, and their burrows have only one entrance.

Canadian scientists have devised a low-priced deep-sea thermometer for fishermen.

PHYSIOLOGY-PSYCHOLOGY

Brain Waves Are Slower In Children Than in Adults

BRAIN waves, those electric impulses direct from the human brain, are slower in children than in adults, and may hold a clue to the time of brain development, Dr. Donald B. Lindsley, of the Brush Foundation, Western Reserve University, told the Midwestern Psychological Association meeting.

The brain waves known to scientists as alpha waves were "tapped" by Dr. Lindsley as they came from that part of the cortex believed to control vision. Records of 46 normal adults were compared with those of 50 children ranging in age from just a few weeks upward.

In adults, these waves occur at the average rate of about 10 per second. For women, the rate is slightly higher than for men, Dr. Lindsley found, and averages about 11 per second.

A 3-months-old child apparently does not have the waves at all. Somewhere between 3 and 6 months they start, and in a 7-month old baby come at the rate of about four and a half per second. At 9 months, they have speeded up to 5 per second; at 13 months, to 6 per second.

The frequency for the five-year-old is between 6 and 7 per second; and for the 12-year-old they have reached adult level.

The absence of the alpha waves in very young babies and their time of starting at between three and six months was especially interesting to the investigators.

"Since infants usually begin to perceive objects and follow them across the visual field at or shortly after 3 months of age," Dr. Lindsley said, "We believe that the onset of alpha waves at about this same time may indicate some relationship with this functional ability.

"It appears that the onset of alpha waves in young infants somewhere between 3 and 6 months may be coincident with the first tendency of the child to perceive objects or to follow them across the visual field. If this is true, the presence of the alpha waves might be considered an indication of the onset of function in the particular brain area investigated."

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PSYCHOLOGY-PHYSIOLOGY

Monkeys Equal to Humans In Vision for Color

MONKEYS are not color-blind as are some of the lower animals. New scientific evidence of this was reported by Dr. Walter F. Grether, of the University of Wisconsin, speaking before the meeting of the Midwestern Psychological Association in Evanston, Ill.

In tests in which the animals were taught to find food in a box illuminated by a patch of light of the color being studied, Dr. Grether found that the color vision of both old- and new-world monkeys is very little if any different from that of normal man.

These results have significance in connection with theories of evolution, Dr. Grether pointed out. This is because they show a high degree of similarity in the color vision of widely separated branches of the primate order, which

includes man, the great apes, and the monkeys.

Scientists have known that the color vision of pigeons also approximates that of man, he indicated. He further said:

"Since lower mammals have very rudimentary color perception at best, it would seem to follow that this visual function has evolved independently in mammals and birds. Yet the final stage of this evolution appears to be almost identical in the pigeon, high monkeys, and man.

"This suggests that for color vision the course and outcome of evolution was not a result of chance variations, but was imposed by some fundamental properties of optic and nervous structures, and the nature of the stimuli which these structures became adapted to analyze."

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