



Cottontail

EVERY hunter's secret ambition is to kill a moose; his real hope is some day to shoot a deer; in actuality mostly he is content to go out and hunt rabbits. The settling up of this country, the shrinking of the forests and the spread of plowland, have removed the big game animals from the reach of large masses of the population; but the rabbit, being a rodent, has made its adaptability and its prolific rate of increase count in keeping it in existence in undiminished numbers in all of its old haunts. As a matter of fact, its numbers if anything have increased. Cottontail knows how to take toll of man's crops, and man has also befriended him by wiping out wolves and coyotes, discouraging foxes, and even by foolishly shooting hawks and owls.

Properly speaking, Cottontail is not a rabbit but a hare. Rabbits make burrows, whereas hares depend on their speed to outrun their enemies, and crouch for shelter in coverts of brush or down timber. There are no true rabbits in North America.

It looks now as though man is going to be compelled to let Cottontail run,

lest in killing and eating him he do himself a grievous mischief. For the common carrier of the serious and yet wholly unconquered disease tularemia is the rabbit, and rabbits infested with tularemia have now been found in prac-

tically every state in the union. It is no longer safe to handle rabbits without rubber gloves, and it is decidedly unsafe to eat them unless they have been very thoroughly cooked.

Science News Letter, December 8, 1934

PHYSICS

Cosmic Rays Deflected in Strong Electric Fields

A NEW method of analyzing cosmic rays—by deflecting them in intense electric fields—has been achieved by Dr. Ernst Lenz at the Physical Institute of the Technical College, Stuttgart, Germany. (*Nature*, Nov. 24). Dr. Lenz is a pupil and colleague of Prof. Erich Regener, world-famous cosmic ray authority.

If cosmic rays consist, in part, of electrical particles such particles should be deflected by both strong magnetic and electric fields. The deflection by magnetic fields has long been known but hitherto scientists have had difficulty in detecting the electric field deflection.

Using three Geiger-Müller counters to line up the axis of a corpuscular cosmic ray and a fourth counter to measure the angle of deflection, Dr. Lenz found that fields of 700 volts per centimeter were capable of deflecting the weaker and softer rays about four-tenths of an inch.

Very intense electric fields of 70,000 volts per centimeter were necessary to deflect the most penetrating rays. For the soft rays the displacement indicated a preponderance of particles bearing a positive charge of electricity. The strong, penetrating rays, however, showed a preponderance of particles carrying a negative electric sign.

From the deflection observed, it was possible to estimate the energy of the weak and strong components of the cosmic rays. The weak particles possessed an energy equivalent to 10,000,000 electron volts and the strong, penetrating particles energies of 2,000,000,000 volts.

The new method, Dr. Lenz indicates, "is considerably more convenient for the investigation of cosmic radiation than the use of magnetic fields."

With publication of reports from Germany it is revealed that research at the Bartol Research Foundation labora-

tories has been directed along similar lines in the past.

Prof. W. F. G. Swann, director of the Bartol laboratories, when informed of the achievement at Stuttgart, pointed out that in April, 1933, he and Dr. W. E. Danforth, Jr., reported to the National Academy of Sciences preliminary results of similar work.

Science News Letter, December 8, 1934

MARINE BIOLOGY

Goose Barnacles Exist, Though Not Hatching Geese

See Front Cover

SOMETIMES enlightenment overdoes itself; in banishing a superstition we fall victims to an equally unjustified incredulity. Thus many persons, aware of the discrediting of the old fable about geese being produced from "goose barnacles," think there is no such animal as a goose barnacle. They do exist, however; they are found abundantly adhering to pilings, ships' bottoms and other marine structures.

Their goose-shaped bodies, armored in shell, were responsible for the old belief. Actually they are molluscs, kindred of clams and oysters, squid and snails, though their peculiar mode of life has rendered them atypical in many respects.

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RADIO

Tuesday, December 11, 4:30 p. m.
CHRISTMAS TREES, By F. A. Silcox,
Chief Forester, U. S. Forest Service.

Tuesday, December 18, 4:30 p. m.
PREVENTION OF FOOD POISONING,
By Dr. Karl F. Meyer, Director, George
Williams Hooper Foundation for Medical
Research, University of California.

In the Science Service series of radio addresses given by eminent scientists over the Columbia Broadcasting System.