

Chamber apparatus, already famous as the equipment wherein the positron was first discovered, they made over ten thousand photographs of the atom explosion tracks caused by cosmic rays.

Evidence was found indicating that many of the tracks were caused by a heavy type particle.

The terrific speed with which the atomic fragments were ejected in some cases represented more energy than could come from the nucleus of the struck atom alone. The fragments must, therefore, take up some of the energy of the incoming cosmic ray.

Science News Letter, January 25, 1936

MEDICINE

Leprosy Does Not Spread in Many Temperate Zone Areas

Stimulating Climate Suggested as Factor That Checks Spread of Disease; United States Practically Free

THE DRIVE of a stimulating climate such as is enjoyed in the northern part of the United States, may be an effective check to the spread of leprosy, Dr. C. A. Mills of the University of Cincinnati College of Medicine told members of the American Society of Tropical Medicine.

Dr. Mills sees leprosy sweeping over the entire world in the next century, as it did in the Middle Ages, if the trend toward higher world temperature continues. Meanwhile, he suggests moving the National Leprosarium from Carville, La., a place of low climatic drive, to Bismarck, N. D., the most stimulating spot available.

A stimulating climate is a vitally important factor for the existence of both men and other animals, Dr. Mills believes as a result of years of investigation of the relation of climate to health. The climate which he finds leads to increased bodily vigor, vitality and resistance to infection is one characterized by frequent daily changes in temperature without great extremes of heat or cold.

Comparing the distribution of leprosy

over the earth with the vigor of the climatic drive shows that the regions of least stimulation are the ones where leprosy is worst, Dr. Mills pointed out.

"With very high indices of climatic drive, such as 26 in North Dakota, human resistance rises so high that the disease simply cannot be implanted, as witnessed by the disappearance of leprosy in and around Minnesota after scores of cases had been imported among the Scandinavian immigrants," Dr. Mills said.

"Within all individual countries this relationship of leprosy to climatic stimulation holds fairly well, increasing altitudes in tropical countries serving to provide temperate zone climatic effects."

The enigma of why leprosy has been prevalent in the Scandinavian countries is also explained by Dr. Mills on the basis of climatic drive. The prolonged benumbing cold for so many months of the year in these countries lowers man's resistance to disease much as tropical heat does. Dr. Mills' map of climatic drive shows most of Scandinavia to fall under a climatic drive similar to that which affects the Mediterranean countries.

Dr. Mills questions whether control of leprosy during recent decades has been due more to segregation of the patients or to the changing factor of climatic stimulation. He suggests that moving lepers to a stimulating climate may be more effective in checking the disease than segregating them in a region lacking the drive of a stimulating climate.

Little Danger in U. S.

The observation that leprosy does not spread in many parts of the temperate zone which embraces most of the United States was made more than ten years ago by Dr. G. W. McCoy, director of the National Institute of Health, U. S. Public Health Service.

There is practically no danger of becoming infected with leprosy in the United States, excepting in certain areas in the south, Dr. McCoy says. He does not, however, suggest climate as the factor which prevents the spread of leprosy in the major part of this country. What the reason may be is still unknown in his opinion.

Some of the lepers in the United States probably acquired the infection abroad, Dr. McCoy points out. The history of these shows that at some time each lived in a foreign country where the disease is prevalent. The remainder were infected in the endemic areas of this country. It takes a long time for leprosy to develop following infection, 25 years in a recent case, which explains why the disease may not have been discovered until after the patient had been living in this country again for some time.

Leprosy, Dr. McCoy explained, like measles or other communicable diseases, probably rises and falls in a more or less regular curve with high points on the curve when there is much leprosy and low points when it is less frequent. But the leprosy curve is much longer than that for other diseases and it takes two or more generations to go from a high point to a low one. This may explain why leprosy seems to disappear in a country as it has in Norway where it was once very prevalent.

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Cheese is 90 to 99 per cent. digestible, says the North Dakota Agricultural College.

Death Valley, noted for its summertime heat, is cool enough in winter to call for evening fires.

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