

PHYSIOLOGY

Deadly Radiations Produced From Living Human Body

German Scientist Working at Cornell Kills Yeast In Five Minutes With Radiation From Finger Tips

EVIL RAYS emitted from human blood, finger tips, the ends of noses or flashed from eyes, which have been discovered at Cornell University to kill yeast and presumably other microorganisms, may have an influence on studies of germ diseases.

As yet these studies of baneful effects, of human radiation are in their preliminary stages but Prof. Otto Rahn, eminent bacteriologist, has carried them sufficiently far to become convinced that his findings are worthy of more extended investigation.

Prof. Rahn, who formerly worked in Germany and is now professor of bacteriology at Cornell University, Ithaca, aroused great interest among scientists attending the meeting of the American Association for the Advancement of Science and the Society of American Bacteriologists in Syracuse by announcing experiments that seem to parallel scientifically in some respects old superstitions that the human body can exert an evil influence on its surroundings.

Yeast, such as is used in making bread, was killed in five minutes merely by the radiation from the finger tips of one person. When a quartz plate a twelfth of an inch thick was placed between the finger tips and the yeast, it took fifteen minutes for the yeast to die.

In experiments completed this week Prof. Rahn also found that the end of the nose and the eye produce the yeast-killing radiation. The effect of the rays from the eyes is strangely reminiscent of the "evil eye" of superstition, so far as yeast is concerned. The human chest does not produce the radiation, however. In the tests of fingers it was found that the right hand was stronger than the left even in the case of lefthanded persons.

Prof. Rahn's experiments show that the blood and saliva produce the radiation, but that with different people the rays emitted vary greatly. Some people have the power of producing effective radiations and others do not, while it varies with the same person under different conditions.

It was also demonstrated that the human body as a whole sends out rays.

The exact nature of the radiation is not yet determined but it may be some variety of ultraviolet rays, the invisible radiations of wavelengths shorter than visible light. This seems probable because the human rays are effective, as are ultraviolet rays, after being passed through quartz.

Four years ago German and Russian investigators discovered that active muscles of the human body emit a very weak ultraviolet radiation which stimulated the growth of microorganisms, especially yeast. They found that resting muscle and most of the other body tissues did not produce the rays, but that blood from healthy, normal people did radiate.

Tissue from human carcinoma growths or cancers showed strong radiation properties in these early experiments, while, unlike normal blood, the blood from cancer patients did not have the power of radiation.

Prof. Rahn explained that another investigator several years ago found that the blood of women at certain periods sent out a radiation that killed or damaged microorganisms.

These human ray discoveries recall the controversy over radiations given off by onion roots and other growing plant tips. Some scientists have reported the detection of ultraviolet-like rays from growing plants while others have been unable to confirm the phenomenon.

Prof. Rahn in stressing the need for further research on the human rays declared that they are "doubtless a physical influence."

Other investigators of human radiation, he explained, found it to be short-wave ultraviolet radiation of about two thousand angstrom units. There are still many puzzling features about human radiation for it is mostly destructive, while mitogenetic radiation from plants is found to be mostly stimulating

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GEOLOGY

1200-Foot Hole Will Seek Geological Evidence

A 1200-FOOT hole will be drilled down through the soil and rocks of New Providence Island in the Bahamas by an expedition from Princeton University, during the early part of August. The hole is to be made in the interest of geological research; it will yield a core which will tell hitherto unknown facts about the structure and ancient history of the islands. The core is to be shared between the British Museum and Princeton University, and kept as a permanent museum record.

The expedition is to be under the leadership of Dr. Richard M. Field and Dr. Harry Hess of the department of geology.

Science News Letter, July 2, 1932

AVIATION

600 Miles Per Hour is Limit Of Speed for Present Planes

"**S**PEED" and "air" are words that have a bond of association like "red" and "blood." Man's speediest travel, if we ignore his hurtling through space as a part of earth, solar system, galaxy and universe, is in a racing airplane at 406.9 miles per hour. How much faster can he go?

Physicists of the National Advisory Council for Aeronautics asked this question of the world's highest speed wind tunnel at Langley Field, Va., in which

air can be made to rush at 800 miles per hour, which is faster than the speed of sound.

When a racing airplane wing section of conventional form was tested in this air stream, it was discovered that at around 600 miles per hour, the drag or the resistance of the wing to the air increased enormously. It will be almost impossible to supply enough power to the airplane above that speed to drive it through the air. Unless some new and