

the Wright Aeronautical Corporation in Wood-Ridge, N. J. It was developed for the U. S. Air Force.

The test chamber is 12 feet in diameter and 96 feet long. Air, supplied by turbine compressors in the adjacent turbine laboratory, is directed at supersonic speeds through a mouth, 20 inches in diameter, at the front of the chamber into the air intake duct of the ram-jet engine. Pressurized steam, at the rate of 150 tons per hour, is vented into the chamber's exhaust system to aid in the escape of exhaust gases and to reduce pressure in the chamber, thereby simulating high-altitude conditions.

Ram-jet engines are used as supplementary power in speedy planes. It is the simplest engine in use and provides more

thrust per pound of engine weight than any other type of aircraft power plant. However, it can not operate in flight until sufficient speed has been obtained to enable it to scoop up enough air for combustion. The speed of the plane on which it is used provides the necessary speed.

It can be used in a missile when given initial speed by rockets. In stationary position on the ground, it operates only when high-speed air is forced into its air intake. The ram-jet has been called a "flying stove pipe," because in its simplest form it is a hollow tube in which combustion takes place. The engine itself, exclusive of the fuel system, has no moving parts and consequently needs no lubrication.

Science News Letter, February 11, 1950

University Aeronautical Laboratory, to the Institute of the Aeronautical Sciences.

Made from three sheets of aluminum, the thin man helps to determine the effectiveness of body control devices in airplanes and measure head impacts during crashes.

Science News Letter, February 11, 1950

● RADIO

Saturday, February 18, 3:15 p. m., EST

"Adventures in Science" with Watson Davis, director of Science Service, over Columbia Broadcasting System.

Mr. Davis will interview nine talented teen-aged youngsters, winners of Washington trips in the Ninth Annual Science Talent Search.

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MEDICINE

Aureomycin Fights A-Rays

➤ AUREOMYCIN, the golden-yellow drug from a mold, may become one of our best weapons against atomic bombs.

It has already shown ability to cut the death rate from killing and near-killing doses of radiation in rats and dogs.

This "highly important advance" in medical defense against death from the radiation effects of atom bombs was made at the Atomic Energy Project at the University of Rochester (N.Y.). It was disclosed in the report of the Atomic Energy Commission.

Following this discovery of aureomycin's anti-radiation effects, the effects of other antibiotics, such as penicillin and streptomycin on acute radiation sickness are being studied.

These drugs had already been considered as valuable medical weapons in case of atomic attack because of their ability to control infection. Persons damaged by radiation are markedly sensitive to germ infection. Many of the Japanese victims at Hiroshima and Nagasaki developed extensive

ulceration and blood poisoning because of this post-radiation sensitivity to infection.

Lead shields around the spleen and inhalation of nitrogen instead of air are other measures which AEC scientists found decreased the death rate in experimental animals. Lead belts, reminiscent of gangsters' bullet-proof vests, might be worn by anyone expecting an atomic attack but breathing nitrogen instead of air is hardly practical, since it would lead to death by suffocation instead of by radiation.

Science News Letter, February 11, 1950

AERONAUTICS-ENGINEERING

Sheet Metal "Thin Man" Used in Test Crashes

➤ A "THIN man" built out of sheet metal can test the stresses on the human body that occur during an airplane crash. The thin man was reported by E. R. Dye, head of the development division of Cornell

Question Box

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