

AERONAUTICS-MEDICINE

Safer Parachute Jumps

► HIGH priority for the problem of getting a man safely down after he parachutes from a plane was urged by Comdr. H. A. Smedal of the U. S. Navy Medical Corps before the Association of Military Surgeons meeting in Washington, D. C.

He stressed this because most of the emphasis has been on the safe escape from a plane using such devices as the ejection seat.

The parachutist faces possible shock when he first leaves the plane, Comdr. Smedal said. Moreover, the parachute harness places the impact of the opening on the crotch and thighs. Other parts of the body may also get part of the impact with the air or with parts of the parachute as it opens and injury may result.

He makes the following suggestions to protect the body against the shock of the parachute opening: 1. distribute the area

of impact over a larger part of the body; 2. place the impact load on the parts of the body best able to stand it and near the center of gravity of the body; 3. lessen the extent and duration of the force; 4. orient the body in taking the proper position for opening of the parachute which is the vertical position.

Few of the suggested improvements have been made, he said. Parachutists still have narrow harnesses which cause local injuries. A rip-stop nylon parachute has been developed which gives a softer and surer opening, and decreases the rate of descent by about 15%. Automatic opening devices have been made but they do not always work.

Among other unsolved problems is the one of the jumper striking the ground and fracturing his legs.

Science News Letter, November 26, 1949

R. Bierman. A part of the continuing research has been published in the AMERICAN HEART JOURNAL and the TRANSACTIONS OF THE ASSOCIATION OF AMERICAN PHYSICIANS.

The measurements were made by means of the sphygmograph, a special type of double stethoscope for comparing sounds and indicating their direction, developed by Dr. Kerr, and by means of electronic devices and strain gauges applied to the measurement of physiological pressures.

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MEDICINE

Theory of Heart Murmurs

► A TEAM of physicians using a new type stethoscope and modern electronic devices have upset the predominant theory by which doctors have explained how the blood vessels transmit heart murmurs.

Heart murmurs, as heard by the stethoscope, long have been considered to be transmitted as sound through the blood vessels. Heart murmurs are the distorted sounds set up in the cardiovascular system by damaged hearts, blood vessels, or by obstructions.

The team of physicians, at the University of California Medical School, determined that the murmurs travel only one one-hun-

dreth as fast as the speed of sound in blood vessels.

The physicians found that the murmurs traveled at almost identically the same speed as, but slightly slower than, the pulse wave, which is the forward impulse set up in the blood vessels as the heart pumps blood.

They concluded that the murmurs actually travel on this pulse wave. The information is important in the diagnosis of heart ailments.

The team of physicians was headed by Dr. William J. Kerr, and included Drs. Vernon C. Harp, Elliot Rapaport and Howard

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