

AERONAUTICS

Story Of Plane Crash

► EVERY PLANE should carry instruments in its tail which would tell the whole story of a fatal crash landing.

This was the recommendation of Dr. Edward J. Baldes of the Mayo Clinic and James J. Ryan of the department of mechanical engineering of the University of Minnesota and the Aeronautical Research Laboratories of General Mills, Minneapolis.

"First of all," they said, in considering what to do about reducing deaths in crash landings, "we must be able to reconstruct the events leading up to aircraft destruction. Too frequently there is little or no evidence to separate the human, mechanical and natural factors in the failure."

They spoke at the three-day meeting of the Aero Medical Association in Washington.

Despite possible opposition of pilots who might not agree to a permanent and continuous check on their flight patterns, the two scientists recommended that up to one per cent of the cost of the plane should be spent on such instrumentation. In case of accident, they pointed out, the instruments in the tail could be recovered and would provide data for immediate statistical analysis.

"Suppose the plane in which you are about to fly is destined to crash," the two men said. "What features would you like built into that plane which might increase your chance of survival?"

They listed these points: The forward one-third of the fuselage should be utilized to absorb the energy of an impact crash and the construction should be so strong that the deceleration provided by the impact will be less than humans can tolerate. Parachutes from the tail of the plane might be used to lessen the impact. For forced belly landings, the under portion of the fuselage should have the flexibility to absorb the impact.

Seats, the most important factors inside the plane, should face backward, where the standard seat belt might suffice, or, if

facing forward, they must have specially constructed seat belts and harness and might be connected to vertical supports which are attached as integral members of the tubular structure of the fuselage.

After proper construction has been integrated into a plane, proper fire protection must be provided.

Science News Letter, March 29, 1952

INVENTION

More Natural Tasting Frozen Orange Juice

► BETTER TASTING and more "natural" frozen concentrated orange juice results from an invention which received patent number 2,588,337. George Sperti, Cincinnati, is the inventor and he has assigned his patent to the Institutum Divi Thomae Foundation, a non-profit corporation of Cincinnati. The fresh juice, according to the patent, is first concentrated by freezing. The ice is then separated from the concentrate, thawed and evaporated. The soluble solids, including pulp and sugars, are recovered and put back with the concentrate.

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Books of the Week

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228 p., illus., \$3.75. Intended to serve as a text for students who will not specialize in genetics and also to inform the general reader who wants to know the truth about the strange claims' being made in this field.

THE UNITED STATES NATIONAL MUSEUM ANNUAL REPORT FOR THE YEAR ENDED JUNE 30, 1951—*Smithsonian*, 112 p., illus., paper, free upon request to publisher, Washington 25, D. C. Originally, a "national cabinet of curiosities," the museum now houses not only exhibits for the delight of tourists but a reference collection for students—altogether 32,617,298 specimens.

THE UNIVERSE AND DR. EINSTEIN—Lincoln Barnett—*New American Library*, 140 p., illus., paper, 35 cents. An account for laymen of the relativity theory. Originally published by William Sloane Associates.

WHEN DOCTORS ARE PATIENTS—Max Pinner and Benjamin F. Miller, Eds.—*Norton*, 364 p., \$3.95. A series of autobiographical accounts of the battles of physicians with their own illnesses, including, among others, heart disease, cancer, psychosis, multiple sclerosis and old age.

ZOOLOGY IN POSTAGE STAMPS—W. Dennis Way and O. D. Standen—*Philosophical Library*, 113 p., illus., \$5.00. Describing the members of the animal kingdom that have the distinction of being portrayed on postage stamps.

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● RADIO

Saturday, April 5, 1952, 3:15-3:30 p.m. EST

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

Dr. Byron T. Shaw, administrator of the Department of Agriculture's Agricultural Research Administration, discusses "Food for Our Future People."

The year 1951 is a *prime number*, divisible only by itself and 1; likewise 5711, the same year according to Hebrew calculations, is a prime number.

ARE YOU LOSING YOUR HEARING?

Check These Danger Signs It May Save You a World of Trouble and Unhappiness

Do you now have trouble understanding folks whom you used to hear clearly?

Do you hear better where it's noisy than where it's quiet?

Does one ear hear better than the other?

Is it hard to hear the difference between fifteen and fifty—then and ten—and life and knife or other sound-alike words?

Do you keep hearing noises—buzzing, crackling, humming, roaring, etc.?

Do you miss out in general conversation because you must SEE people talking to know what they're saying?

Do you feel a growing suspicion that folks are ridiculing you behind your back?

If you must say "yes" to any of the above, you may already have a serious hearing loss. That's how deafness often comes—creeps up so gradually you may be quite deaf before you realize what is causing all your discomfort and inconvenience.

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