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INVENTION

Patents of the Week

Two devices for preventing auto accidents have been patented. An inflatable "boot" that keeps ice from forming on aircraft and a water skiing starter seat are other inventions.

➤ GREATER AUTOMOBILE SAFETY is claimed by two inventions. One prevents accidents of "runaway" cars; the other protects passengers in automobile collisions.

The development of automatic transmissions has increased the number of accidents caused by a car being started while in gear or accidentally placed in gear while the motor is running. Such accidents as driverless cars running down persons because the gas pedal was accidentally stepped on by a passenger in the vehicle might be eliminated by using the invention which received patent No. 2,970,679.

The invention automatically places the transmission into the "park" or "neutral" position upon application of the emergency brake. Any accidental use of the gas pedal while the motor is running will then have no effect.

The device can also be inserted in cars with the newer push-button type automatic transmissions. It can be easily installed by a "do-it-yourself" car owner and is simply constructed, claim inventors William J. Suller and John M. Fernandez, both from New Haven, Conn.

The two men invented the safety device in their spare time because they were appalled at the accidents that continually occurred with automatic transmissions. Mr. Fernandez once had a near tragedy when he accidentally stepped on the gas pedal while waiting for a drawbridge to close.

Injuries resulting from front-end automobile collisions can be reduced by an improved safety-seat mechanism that cradles passengers from injury. Roger R. Racine of Tonawanda, N. Y., has invented a device that automatically lifts the forward portion of the front seat when a car is in an accident. Passengers are then prevented from hurtling forward against the windshield or dashboard, a major cause of bodily injuries.

A bumper, attached in front of the conventional car bumper, acts as a sensitive feeler for the mechanism triggering the front seat. When the forward bumper meets an obstruction, hydraulic fluid pressure is immediately generated in pipes between the bumper and front seat. Hydraulic motors raise the front seat.

The patent rights of No. 2,970,862 were assigned to Protect-O-Matic Corporation.

An inflatable "boot" preventing ice from forming on airplanes and guided missiles has won patent No. 2,970,794 for Herbert C. Johnson of Minneapolis, Minn. The boot is ideally suited for high-altitude military aircraft and missiles that pass only through the atmospheric zone where icing occurs.

The boot is glued to airplane sections

subject to icing. When too much ice accumulates on the boot, it is inflated by pressurized gas such as nitrogen. As soon as the pilot passes out of the icing zone, the boot can be jettisoned along with the ice.

The plane or missile can then be controlled more easily. Present de-icing means are usually riveted to the airplane structure, reducing the efficient performance of the aircraft.

Patent rights were assigned to the Secretary of the Air Force.

One of the biggest problems in water skiing is getting started, or rising to an upright position. Although some skiers frequently use docks to make their start, Earl W. Haugland of Hampden, N. D., believes his invention is much better.

Mr. Haugland has invented a lightweight portable seating device that can be placed in shallow water. The device, patent No. 2,970,636, is easily collapsible for carrying or storage, and can be quickly erected.

Because less power is needed to get a skier waterborne, a smaller horsepower motor can be used.

• Science News Letter, 79:118 February 25, 1961

INVENTION

Inventing Is Seen as Random Mental Process

➤ INVENTING is a random mental process, the well-known inventor Jacob Rabinow has reported.

The inventor is faced with choosing from widely assorted bits of facts and ideas when inventing. He must constantly juggle these "hard facts of life" in trying to find a solution.

The difference between a good and a bad inventor is that the good inventor knows how to "separate the wheat from the chaff," Mr. Rabinow said. Once the solution is found, scientific analysis provides the final test of the invention.

A good inventor must have training and a wealth of background information in gadgets, processes and other activities. Without this background, the chances of inventing many useful things are slim. Although a person can invent with just a few facts, he is likely to be limited to that one invention.

Mr. Rabinow, presently head of his own consulting company, spoke before the Washington, D. C., section of the American Society of Mechanical Engineers. He already has had 68 patents issued to him, and at least 50 more are pending.

• Science News Letter, 79:118 February 25, 1961