

are involved in the largest percentage of accidents. The newer the model, the fewer the accidents.

The instrument panel is the greatest cause of injuries during all crashes, they also found. It is followed closely by the steering assembly. The windshield, door structures and ejection account for somewhat fewer injuries.

Studies by research institutes have shown that persons using seat belts are 35 per cent to 60 per cent safer than those unprotected. Cornell University scientists estimate that belts, if widely used by the motoring public, could save 5,000 lives each year.

In many ways, the National Safety Council points out, the human body is remarkably durable. It can survive far greater jolts than are experienced in most auto crashes.

Col. John P. Stapp, director of the Air Force Aero Medical Field Laboratory near San Antonio, has subjected himself to crash stops from 632 miles an hour to zero in 1.4 seconds. He suffered no disabilities since he wore a safety belt.

The use of seat belts tripled in 1961. The figure will be even higher in 1962 with the added ease and lowered cost of installation designed into this year's cars.

Built-in seat belt anchorage points are reinforced to meet safety requirements and are permanently welded to the underside of the floor. Rigid tests have shown that in most cases of seat belt failure, the weakest link is at the anchorage point. The factory-installed structures will limit even further the possibility of death and injury when seat belts are used.

Besides the manufacturers and the Safety Council, seat belts are backed by the American Society of Safety Engineers, the U.S. Public Health Service, and the American

Medical Association among others. Physicians, particularly, are convinced of the value of seat belts, according to the AMA. A recent survey of doctors showed that 33 per cent are actually using them.

Roy Campanella, star catcher of the Los Angeles Dodgers, is perhaps one of the most outspoken advocates of the belts. In January, 1958, his car skidded on a wet pavement at 30 miles an hour and hit a pole. His injuries left him paralyzed from the shoulders down. One year later Campy was again in an auto accident, this time wearing a seat belt. Although three other passengers who were not wearing the belts were injured, Campy was unscratched.

Research on seat belts and other safety devices continues at centers like Cornell University and the University of California, Los Angeles. Automobile accidents occur on schedule at these research laboratories, without a single "living" fatality. The deaths are recorded by life-like manikins that cost up to \$7,000.

These anthropometric dummies are rigged with hundreds of dollars of testing equipment and sent crashing down an obstacle course in automobiles donated by the auto industry.

The U.S. Public Health Service has been supporting research for several years in traffic safety.

These studies have ironed out or suggested the changes in automobiles that have been incorporated into the newer models to reduce danger. They have shown the adverse effects of alcohol and drugs on good driving, the need for wider vision, the need of crash helmets and seat belts and the aid of luminescent road markings or painted roads and soft crash barriers, such as hedges, along the road.

• Science News Letter, 82:242 October 13, 1962

MEDICINE

Doctors Are Reading—

Lung Disease Detection

► CHRONIC LUNG diseases should be suspected among young as well as older pneumonia patients, physicians are reading in the Journal of the American Medical Association, 181:1135, 1962.

A three-year study by Lt. Col. Theodore Bacharach and Maj. Harold S. Nelson at Letterman General Hospital, San Francisco, involving 234 pneumonia patients, showed a history of previous pulmonary disease in 39 per cent under the age of 40 and 53 per cent in those over 40. In cases of pneumonia, doctors are advised to investigate whether this points to early stages of chronic pulmonary disease.

Dangerous Assurances

Patients should not be guaranteed results of surgery, such as, promises that a surgical operation on the ear for "stapes mobilization" would make hearing no worse, R. P. Bergen, of the AMA Law Department, warned. He advised doctors to use consent forms signed by patients saying no guarantees or assurances of results of operations had been given (p. 1114).

Skiing Hazards

Dangers from skiing are not confined to broken legs. High altitude can cause a transient constriction of the minute veins of the lung, the leading JAMA editorial pointed out, calling attention to the near death of two physicians skiing above 6,000 feet (p. 1130). Oxygen and bed rest gave relief in the condition, which also affects natives of high altitudes returning from sea-level visits.

Right to Die?

It is neither scientific nor humane to keep a patient alive when death is imminent and living is painful, Dr. Frank J. Ayd Jr., chief of psychiatry, Franklin Square Hospital, Baltimore, concluded in a report on the hopeless case (p. 1099). Scientific weapons for the "prolongation of agony" deny the dignity of man and his right to live and die peacefully, he believes.

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The principle of *thermoelectricity* dates back to 1821.

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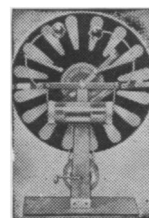
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