ENGINEERING

Advances in 1960 Cars

A rear engine, electroluminescent lighting for dashboards, new tire treads, improved trim and a new method for suspending the automobile body are featured in 1960 cars.

ALONG WITH other advances in 1960 cars, one will feature a rear engine.

General Motors' Corvair, competing in the small-car market, will feature its air-cooled engine, mostly aluminum, in the rear. This is said to help maintain a 40% to 60% weight distribution ratio on the front and rear wheels, respectively, for high stability. The engine's six cylinders are arranged to work in a horizontal position.

Ford's six-cylinder, 90-horsepower Falcon will offer fuel economy of 30 miles to the gallon under normal driving conditions.

New electroluminescent lighting on Chrysler and Imperial dashboards will cut instrument glare at night. In the new type of lighting, said to last 10 times longer than an ordinary incandescent light bulb, an electric current is made to flow through phosphors on glass to produce a soft glow of easily visible instrument readings.

Oldsmobile bodies will be suspended from "nodal points" on the frame to create smoother rides for passengers. This grew out of a hobby of Lowell Kintigh, an assistant chief engineer, who likes to analyze and control vibrations in his spare time. He found that there are nodal points on an auto frame where vibrations are minimum. By mounting the body on the frame at those points, minimum road vibrations and noise are transmitted to the passengers.

New tire treads made of a rubber derivative of petroleum, called styrene butadiene, are aimed at giving a softer ride in new Chevrolets. Tread life is increased 10% to 20%, the company said. Squeal is reduced by the new material also.

Trim on the Ford line will stand up better against the sun's heat, salt spray and heavy humidity because of recent corrosion research. Better trim, the company said, will result from up to 50% more nickel for electroplated zinc die-cast and steel parts, better controls on the plating process during manufacture. A new aluminum alloy provides high luster, despite heavier anti-corrosion anodized coatings.

Science News Letter, September 26, 1959

ZOOLOGY

Mice Threat "Down-Under"

AT THE MOMENT the principal threat to the man-on-the-land in Australia is not the marauding kangaroo, but the mighty mouse.

Queensland's Darling Downs area has been ravaged for weeks by the mouse plague which continues unabated.

The reports are almost as bad as those of the big mouse plague of 1917. Every wheat and haystack in the Riverina area of southwest New South Wales was then black with scampering mice.

At Ganmain railway station men demolished a mice-riddled stack of bagged wheat, and a brown flood poured across the road and invaded the town. Today similar scenes are being enacted in Queensland.

Householders are trying to hold back the invaders with shovels. Baits and traps are set, but still night after night the mice come on.

In the 1917 plague some farmers stood the posts of their beds in kerosene tins to protect themselves and their mattresses. But the mice still got into the mattresses.

As in the earlier plague of 1903, the pest today is *Mus musculus,* the acclimatized European house mouse. The European mouse has "gone bush" in Australia, and in the mild climate continues to thrive.

The 1917 plague was caused by the accumulation of huge wheat stocks in railway yards and on docks due to the shipping shortage in World War I. At one dump 14,000,000 bags, enough to fill 25 ships, were stacked. In South Australia mice appeared simultaneously over an area of 700 square miles.

The female mouse produces a litter of between four and eight in 21 days. In this super-abundance of wheat, the mouse race multiplied and multiplied.

Today wheat is held in dumps because of the lack of markets overseas. Silo wheat is free from the mice plague.

So many mice were destroyed in 1917 that the numbers were measured in tons, 60,000 mice to the ton.

In northwest Victoria an official destruction campaign bagged 600 tons or 36,000,000 mice in six weeks. At one town in Victoria 6,500,000 mice were destroyed in one night.

Most successful way of killing mice in 1917 was by using a device known as a "double fence". This allowed mice in an enclosure, but not out of it. Inside they were poisoned, fumigated, or driven into pits and killed with carbon bisulfide.

Cold weather finally ended the mouse invasion, and since then the mice have been kept down by making farm buildings and silos mouse-proof.

Devastating as the present plague is, old timers say it is nothing like as bad as the 1917 one, when rodent extermination was well-organized for the first time in Australia.

Science News Letter, September 26, 1959