

conditions fairly quickly, commented Mr. Walker. After about a week, the sweat glands of a new laborer adjust to the high temperatures, and he sweats profusely in nature's own method of counteracting heat.

Flowing Walls of Rock

As a result of the enormous pressures in some of the deepest tunnels of Champion Mine, Mr. Walker stated, hornblende schist walls are showing evidences of a natural plasticity which accentuates the normal closure of the rock to such an extent that within 24 hours after initial drilling, walls have sometimes perceptibly moved into the excavation as much as six inches.

The deep mines are reached from the surface by circular shafts which vary from 4,000 to over 6,500 feet in depth.

One of the deepest single-wind shafts in the world permits men to plunge in an elevator cage nearly one and one-half miles straight into the earth in about three minutes. This is Gifford's shaft on the Champion Mine, a circular shaft 18 feet in diameter which reaches 6,586 feet deep. Two steel ropes, each weighing 20½ tons, pull two double-decked cages made of dur-aluminum, each capable of carrying 50 men or five tons of ore.

Present official estimate is that the Kolar mines will continue probing the earth to the depth of 11,500 feet. Controlling factors for reaching these great depths are three-fold, Mr. Walker said: rock pressure, ventilation and plastic flow. Kolar gold mines have advanced as far as feasible by existing methods of mining, he added.

The problems now seem rather beyond the province of the practical mining engineer and have entered the field of the scientist and the specialist.

Science News Letter, September 7, 1957

MEDICINE

Car Headrest Stops Whiplash Neck Injury

➤ A CAR HEADREST that prevents whiplash injuries of the neck during highway accidents was recommended by Dr. Albert D. Ruedemann Jr. of Detroit, in the *Journal of the American Medical Association* (Aug. 24).

Whiplash injuries occur when a car is struck in the rear and its occupants have their heads snapped back. Both super highways and the new lower seat models are factors causing an increasing number of such injuries, Dr. Ruedemann reports.

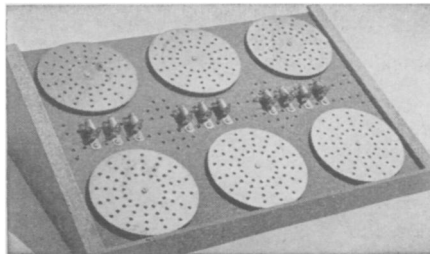
The headrest is six inches wide, six inches high and is fitted on the top of the present seat. It follows the backward curve of the seat so that the driver cannot rest his head on it and become drowsy.

An experimental model that can be screwed to the seat frame and is removable was made by officials at the Chrysler Corporation.

It should be used along with a shoulder-type seat belt to keep the body from being thrown forward, Dr. Ruedemann recommends.

Science News Letter, September 7, 1957

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