PUBLIC SAFETY

### Freak 1953 Accidents

➤ A LAWNMOWER shot a man. A squirrel hit another over the head. A dog tried to park his owner's car. An antique exploded in a living room.

These are just a few of the freak accidents that happened in 1953, according to Paul Jones of the National Safety Council in Chicago, who has rounded up the year's most unusual accidents.

Robert Heinbaugh of Painesville, Ohio, was innocently mowing his lawn when he was shot in the toe. The mower ran over a cartridge.

In Memphis, Tenn., J. C. Lightfoot stood under a tree enjoying the outdoor air, struck by the beauty of nature. He was struck by something else, an ear of corn thrown by a squirrel above. Mr. Lightfoot went home with a long, deep gash in his head.

Mrs. Jewell Norman left her car with the motor idling one day in Lincoln, Nebr. Her dog got behind the wheel, pawed the gear shift a bit, and backed into another

The "last" shot in the Civil War was fired in the living room of the Ishmael Lynch home in Port Gibson, Miss., this year. shell found long ago on a battlefield, fell from the mantel and exploded, blasting holes in the floor, walls and ceiling.

Many a man has been saved, as the saying goes, by the seat of his pants. David Causey Tuscaloosa, Ala., can say that literally. His car went out of control and came to rest hanging over a railroad overpass. Mr. Causey was thrown out. The seat of his trousers snagged on the underpart of his car, and he was left dangling 60 feet over the tracks.

Naturally there has to be a pun. In Santa Barbara, Calif., a car driven by Thomas F. Coffey collided with one driven by Ben Pott. Police made no arrests. No grounds.

Science News Letter, January 2, 1954

**GEOPHYSICS** 

## Shortwave Radio in 1953

► IF YOU thought shortwave reception was good last year, thank not only your set, but the ionosphere, the earth's radio reflecting roof for transmitting shortwave messages around the world.

Experts at the National Bureau of Standards have reported that shortwave reception was good three-fourths of the time during

When listening conditions were poor, due to disturbances in the ionosphere, the radio specialists correctly anticipated four out of five of these storm days. For every ten storms that they forecast, six materialized. Their ability to predict what the reception is going to be during the seven days following the forecast is shown by the fact that 83% of all the predictions they made, including both stormy and quiet periods, were "satisfactory or perfect."

Forecasting ionospheric storms correctly is of great importance in warning when urgent shortwave messages must be rushed through. Disturbances in the earth's outer atmosphere can disrupt shortwave radio communications continuously for one or two weeks. These storms cause weak signals, fading and occasional blackouts of shortwave communications.

The shortwave forecasts, specifying reception conditions for the following seven days, are issued twice a week by the radio experts at the National Bureau of Standards. They are based on information gathered from all over the world and tailored for reception of broadcasts from London, Moscow and Berlin.

During the last two years, up-to-the-minute forecasts designed to cover signals reaching Alaska from the Orient or western United States have been issued from An-

The Bureau of Standards also issues short-term predictions of shortwave radio reception conditions four times a day by way of signals broadcast from its radio station, WWV. Of these, 92% were "satisfactory or perfect," the radio experts report. Only four percent of the storm periods actually occurring were not anticipated. Eight out of ten of the storms they forecast would occur, actually did plague shortwave operations.

Science News Letter, January 2, 1954

ENTOMOLOGY

#### **Four Locust Generations Develop Without Fathers**

➤ FOUR GENERATIONS of fatherless female desert locusts have developed in the laboratory of Dr. A. G. Hamilton, St. Thomas' Hospital Medical School, London.

Dr. Hamilton reports in Nature (Dec. 19, 1953) that the fatherless locusts live much longer than sexually produced control specimens.

Fatherless development is called parthenogenesis, and when the result is always female, it is said to be thelytokous. The original desert locust, Schistocerca gregaria, females in the experiment were sexually produced, but were separated and have not been in cages with male locusts since.

The parthenogenetic females are normal in most respects, Dr. Hamilton said. The interval, however, between emergence to adulthood and the laying of the first eggpod is longer for the fatherless females than for others.

Eggs produced parthenogenetically are much less fertile than normal eggs and only about one-quarter hatch. Three-quarters of the normally produced eggs usually hatch.

Dr. Hamilton suggested that this ability for parthenogenetic reproduction plays a part in the preservation of desert locusts when they are isolated in the solitary phase of development. Parthenogenesis of the thelytokous type has been observed in other locusts and grasshoppers.

Science News Letter, January 2, 1954

**SPELEOLOGY** 

#### **Amateur "Spelunking" Can Aid Scientists**

➤ "SPELUNKING," the exploration of caves by amateurs which has become popular recently, can add much to scientific understanding of the history of man in North America, Brother G. Nicholas, F.S.C., of Cumberland, Md., reported at the meeting of the American Association for the Advancement of Science in Boston.

He pointed out that caves have been neglected as objects of scientific study in recent years. The importance of cave exploration is emphasized by the discovery in Sandia Cave, N. Mex., of evidence of man

living there 15,000 years ago.

There are an estimated 5,000 known caves in the United States, most of which have not been studied scientifically, Brother Nicholas said. New discoveries are also being made in caves which have been studied before. The scientific study of caves is called speleology.

Science News Letter, January 2, 1954



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