

MAMMALOLOGY

**Rare Seals Reside
In San Diego Zoo**

► THE ONLY two Northern Elephant Seals believed in captivity are now in residence at the San Diego Zoo. These two seal pups were captured on Guadalupe Island, Mexico, and are the first specimens to be imported before World War II.

When they reach adulthood, the pups may be as long as 22 feet and weigh as much as four tons.

One of two species of Elephant Seal, the Northern form is found only on the islands off Baja California, Mexico, and southern California. At the turn of the century, the species was near extinction.

In the mid-1800's, whalers had slaughtered great numbers of Elephant Seal for their oil as a substitute for whale oil which was scarce. Now, there is rigid protection of the Elephant Seal; its numbers are increasing and the animals have reappeared in many areas.

The other species of Elephant Seal occurs in the Antarctic.

Science News Letter, July 5, 1952

INVENTION

**New Gun Sight Patented
By Aircraft Carrier Expert**

► REAR ADMIRAL Daniel V. Gallery, Jr., commander of the Hunter-Killer Force of the Atlantic Fleet, has been granted a patent by the government on a new gun sight.

Admiral Gallery, who is an author as well as an inventor and an expert in aircraft carrier operations, received his patent for a gun sight to be used with aircraft machine guns. He made application for the patent 11 years ago. The time interval probably means that the device has been kept secret until now.

The Admiral has introduced a correction into one of the two sighting elements on an aircraft machine gun which compensates for the effect of the plane's speed on the initial velocity and trajectory of the bullet. Patent number is 2,600,400.

Science News Letter, July 5, 1952

VETERINARY MEDICINE

**Mink Coats Threatened
By Anthrax Outbreak**

► MINK COATS will be scarcer unless mink breeders are careful to avoid feeding their animals meat from animals that have died of anthrax, the American Veterinary Medical Association warned in Atlantic City.

Anthrax-infected beef was found the cause of three out of four anthrax outbreaks on mink ranches in Wisconsin during the past year. The fourth was suspected to have come from infected pork livers.

Science News Letter, July 5, 1952



Evergreens

► EVERGREENS INCLUDE many plants besides the needle-leaved conifers. All palms and cycads, many ferns, most magnolias, bays and laurels, the Christmas hollies, arid-land succulents as diverse as century plants, yuccas and aloes—all these and many more are evergreens.

An evergreen is a plant that retains its foliage during seasons when food manufacture and growth are suspended, whether it be during winter storms or summer droughts.

Staying green all the time has its advantages. It enables the plants to get into action immediately upon the return of favorable weather, without having to wait to unfold and expand leaves that have been stored in buds or hidden underground. This is particularly helpful in the far north and at high altitudes, where the growing season

ENGINEERING

Free Lines from Sleet

► GRACEFUL POWER lines that sometimes span whole valleys can be de-iced during sleet storms by calculated overloads or short circuits, the American Institute of Electrical Engineers meeting in Minneapolis, Minn., was told.

Ice-covered lines, though beautiful to the layman, can be headaches to power companies. Sometimes the cables snap under the heavy ice load and slither along the ground like snakes, spitting fire as they go until a circuit breaker cuts off the power.

To melt the sleet as it forms around the lines, heavy electrical loads are applied which cause so much current to flow that the conductors become heated. The ice then melts and drops to the ground.

When sleet conditions prevail, careful check is kept with the U. S. Weather Bureau and with observers along the transmission line. Radio and carrier-current de-

is short, and also in deserts, where rains may be brief and unpredictably irregular in their occurrence.

But there are drawbacks to evergreenness, too. Because of the great expanse of surface which leaves have to present to the sun in order to carry on their food-manufacturing business, leaves are great evaporators. And when water is lacking, as in the desert, or frozen into unavailability, as in the arctic and temperate zone winters, evergreen leaves are under really critical stress.

Apparently in response to these recurring water crises, a number of interesting water-saving devices have been developed in evergreen leaves. Their surfaces are sometimes greatly reduced, as in conifer needles and the "mouse-ear" leaves of some desert plants; they may have thick, waxy or horny skins, as on holly and magnolia leaves; there are often hairy, scaly or light-reflecting coverings that protect against excessive sunshine; the microscopic stomata or "breathing-pores" frequently are sunk in pits or grooves.

As an extreme development, leaves may be omitted altogether and the green food-making surface confined to modified stems, as in cacti and similar succulents, or in such "switch-plants" as Australia's casuarina tree and the ephedras of China and our own Great Basin area.

There are also internal protections against excessive evaporation. These usually take the form of a concentrated or thickened sap, containing high percentages of mucilage-like polysaccharides or sometimes of mineral salts. As is well known, it is easy to evaporate water out of a very thin syrup, but as the syrup becomes thicker, evaporation becomes slower and slower. The sap of some evergreen plants seems to work on the same principle, saving at least the minimum of water necessary for survival.

Science News Letter, July 5, 1952

vices are used to communicate information from point to point of a company's system.

Occasionally sleet-covered wires fanned by the wind begin to swing violently, sometimes crackling against each other in a flash of fire. More rarely, the lines start swinging up and down instead of from side to side, vastly damaging the transmission facilities. That condition is referred to as "galloping conductors." It has filled many a power company employee with awe.

De-icing techniques used by electric utilities in New York State, northern Illinois, Indiana, Ohio, Kentucky, West Virginia, Tennessee, Pennsylvania and New England were reviewed in the technical reports presented at the meeting.

Although much progress has been made in the past 40 years in reducing ice-caused damage, many problems remain.

Science News Letter, July 5, 1952