



#### Swans

➤ ACCORDING to ancient custom in England the swan has the status of a royal bird, and swan-keeping is a royal prerogative. Under certain conditions the Crown will grant the privilege of keeping swans, together with a "swan mark," a mark similar to a cattle brand which is cut into the bird's upper bill for identification.

The swans seen on the Thames bear the swan mark of the king and of two guilds, the Dyers Company and the Vintners' Company. Once a year all Thames swans are collected in a ceremony known as "Swan-Upping," and the young cygnets are marked and their flight feathers are cut.

This royal bird, the mute swan, is a native of Europe and Asia. It was introduced into North America as a domesticated bird to adorn parks and estates in the European manner. In the course of time individuals have escaped from domestication, and by now the mute swan has become established to some extent in the East, notably in the Hudson Valley.

Despite its name, the mute swan is capable of making sounds. It can sound a resounding trumpet call and when aroused it hisses angrily.

The two native American swans are the trumpeter swan and the whistling swan. The trumpeter, largest of all swans, reaches a length of more than five feet, measured from bill to tail with the neck stretched straight as in flight. It is the most publicized of the swans in this country because of the heroic fight being made to save it from extinction.

Although trumpeters once existed in great numbers here, the steady development of the land has slowly driven it towards the vanishing point. Small numbers of wild trumpeters in Canada and a few hundred which seem to be thriving on government wildlife refuges in the West represent the last slim hope that this magnificent bird will survive.

For whatever consolation it may be if the trumpeter becomes extinct, its call has been recorded for posterity. In 1937 Dr. A. A. Allen captured two cygnets and then made a transcription of the ensuing rescue by the two parents, complete with cries of distress from the youngsters, the reassuring honks of the parents and then finally the swanly hubbub of happy reunion.

The whistling swan is about ten inches shorter than the trumpeter, and gets its name from the shrill sound, not really a whistle, uttered by the migrating flock. The whistler breeds in the far Arctic north. This fact plus its habit of extremely high flight and a strong innate wariness seems to account for the whistlers' marked success in surviving on this continent which man has rendered so inhospitable for so many other creatures.

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#### MEDICINE

## Tension in Blood Pressure

➤ EMOTIONAL tensions are an important factor in the development of high blood pressure, many research physicans believe. Evidence for this view is piling up.

A group of University of California School of Medicine researchers have reported the following findings in a paper in the AMERICAN JOURNAL OF MEDICINE:

1. Of a sampling of patients with high blood pressure, 75% had unique personality patterns which differed distinctly from those of well persons and patients with other ill-

2. Dizziness, headache, fatigue and other symptoms often believed to result from high blood pressure usually preceded by many years the discovery of the existence of the disease.

These findings pose the possibility that the high blood pressure developed as a result of long-standing emotional conflicts which probably were responsible for the symptoms. The scientists described their group of patients as emotionally inhibited people who are dominated by an overstrict conscience which binds them in an "emotional straight-jacket." A strong sense of pride moves such people to hide their conflicts from other people and even from themselves.

The California group also claimed that the presence or absence of emotional stress influenced the course of the disease. They confirmed earlier observations that even the discussion of an emotion-charged problem raises the blood pressure of a person with high blood pressure much higher than it does the pressure of an unaffected person.

The scientists who made the study are Dr. Maurice Sokolow, assistant professor of medicine; Dr. Samuel P. Hunt, clinical instructor in psychiatry; and Dr. Robert E. Harris, associate professor of medical psychology.

Science News Letter, August 12, 1950

### NEW Model SL MINERALIGHT

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**AERONAUTICS** 

# How Slow Can a Plane Be?

➤ WIND tunnel with a reverse twist: How slow, not how fast, will an airplane fly?

To find out just how slow, light liaison aircraft are being tested in a specially designed wind tunnel at the University of Wichita in Kansas.

This slow-speed flight research indicates that planes may be able to fly as slow as 20 miles an hour. At that air speed a plane headed into a 20-mile-an-hour wind could hover like the present-day helicopter.

Under the direction of Prof. Kenneth Razak, head of the school of engineering, the study is being made primarily for the United States Navy for application to carriertype planes, including jets. The information obtained will, however, apply to other aircraft.

Flight speed is decreased by putting slots in both the leading and trailing edge of the airplane's wings. The flow of air through these slots and over the flaps reduces the speed of the aircraft. The same lift and increased control are maintained with the use of slots.

Present day carrier-type aircraft with a landing speed of approximately 80 miles per hour could be landed on the deck of a carrier at 60 miles per hour if wing slots were used, Prof Razak believes.

Science News Letter, August 12, 1950