

ENGINEERING

New Type Watercraft Has Aerodynamic Features

A NEW and unique type of watercraft, said to have a hull efficiency more than one-third greater than any motor boat of previous design, has been successfully tested by a Portland, Oregon, inventor.

Known as the Strode Aerohydrocraft, the boat is unique in that it incorporates for the first time both aerodynamic and hydrodynamic principles in design.

The hull of the craft is similar in construction to the wing of an airplane and has, extending from its sides, a wing-like structure composed of airtight compartments. These wings serve to give "lift" to the boat when it is in operation. It is powered with a stock light car engine. V. W. Strode of Portland is the inventor and holds basic patents on his development.

Because all previous boats have been designed and improved with consideration given from deck line to keel, while the Aerohydrocraft combines aerodynamic and hydrodynamic principles, Mr. Strode calls his new development the first radical departure made in boat design since man began the building and use of boats.

The top service speed of the new craft is at present 40 miles per hour, although further development is expected to make for even greater speed. The aerodynamic features are said to give it an unusual riding ease.

Complete and scientific streamlining of the boat serves further to augment its efficiency.

In addition to being more efficient in operation, the hull of the new type craft is non-sinkable and non-capsizable. Following tests, the boat was taken over by the city of Portland, where it is being used as an ambulance and first aid boat on the Willamette river.

Science News Letter, August 1, 1936

CONSERVATION

Yellowstone Elk Menaced By Failure of Range

YELLOWSTONE'S ten thousand elk of the Northern Herd face starvation and death during the coming winter, because of the unprecedented failure of their rangeland and of the fields where hay is normally grown for their winter use. A survey of the situation shows a falling off in density of forage vegetation of 27 per cent, as compared with the figures for last year.

Not only is the total amount of vegetation decidedly less, but what is left is qualitatively less fit for animal consumption. The palatable grasses have been largely burned out or eaten off to the roots. Their place is taken by various kinds of undesirable weeds and unpalatable brush. This means not only bitter

hard times for the elk during the coming winter, but also very slow recovery of the one-time rich game rangeland. The pasture will be years, perhaps decades, in coming back.

"Perhaps the most distinct indication of volume of forage that will be available during the coming winter is the height of forage plants," the report continues. "The average height of all plants examined in the plots is 65 per cent less than in 1935. In several instances the quadrats examined did not contain a single grass seed stalk, while in the previous year a good seed crop was produced. Seedling crops have been totally lacking this year or have died due to weather conditions.

"Unusually high temperatures along with hot, dry winds melted the snow in early April and caused very rapid runoff. The rapid melting of snow did not permit the soil to absorb a normal, or even a slight amount of moisture. An abnormally dry period followed in May and in the Gardiner area only .21 inches of precipitation was recorded during the month.

"June had a more normal rainfall but this was largely offset by high temperatures, and the fact that rainfall occurred in a short time with runoff high. Combined with the high temperatures were several wind and dust storms that greatly increased evaporation.

"It is obvious to the layman examining the winter game range that a critical condition exists, and that action is necessary to even maintain forage at its present status."

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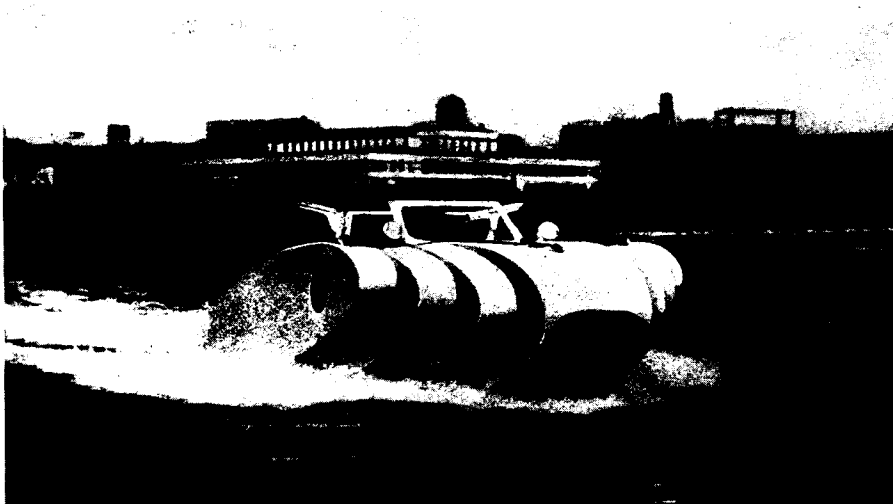
BIOLOGY

Gland Secretion Causes Color Changes in Lizards

THE little color-changing lizards they call chameleons in Florida do not depend on their nerves to control their shifts in hue, but on the secretion of one part of the pituitary gland, a tiny organ situated close to the brain. This is indicated by recent researches of Dr. L. H. Kleinholz of Harvard University (*Proceedings of the National Academy of Sciences*, July).

Dr. Kleinholz used several approaches to the problem. He found that cutting nerves did not affect the lizards' color-changing ability, but that removal of the pituitary gland left them unchangingly green. But injection of extracts of the gland, from other animal sources, at least temporarily restored the color responses.

Science News Letter, August 1, 1936



HAS AIRPLANE LINES, BUT RUNS ON WATER