

Coast Guard to Study Icebergs' Home

Oceanography

The birthplace of the icebergs that menace trans-Atlantic shipping, the waters between Labrador and Greenland, will be studied during the coming summer by an expedition sent out by the U. S. Coast Guard. From the observations made it may be possible more accurately to predict the path of these bergs and how and where they drift.

Already their wanderings as they pass southward are fairly well known. This is a result of the International Ice Patrol's regular observations since 1912, when the Titanic disaster focused the attention of the world on their danger. The work to be done this summer is expected to complete the knowledge of their history, by furnishing now unknown facts regarding the conditions at their source.

The expedition will be made in the Coast Guard vessel Marion. It will be under the command of Lieutenant Commander Edward H. Smith. He has had ten years' service in the ice patrol work, and is also a trained oceanographer, for he spent two years in Europe and several more at Harvard University in ocean-

graphic research. Lieutenant N. G. Ricketts is his first officer, and he also has had extensive experience in the ice patrol.

After April 15, 1912, when the White Star liner Titanic struck an iceberg off the Grand Banks of Newfoundland and went to the bottom, with a loss of 1,500 lives, an international convention "for the safety of life at sea" was held at London. From this there resulted the Ice Patrol of the U. S. Coast Guard. Every March two staunch Coast Guard vessels sail from Boston to the ice fields, and remain there until the dangerous season is over, usually about the middle of July. Twice a day these boats broadcast by radio to nearby liners the location of all the ice in the vicinity, so that they can head southward to safety. Since the Coast Guard began this work fourteen years ago only three lives have been lost by collision of a ship with ice.

The science of oceanography has helped to a great degree in solving the problem of making ships more safe in the ice field, Commander Smith told Science Service. "Little

was known," he said, "before 1912-14 regarding the drift of the bergs, their rate of melting, and the degree of danger which they formed to passing traffic; except for the fact that they mostly came from Greenland and that they finally melted in the off-shore waters of the Atlantic, which appeared to be considerable of a mystery.

"Over 3,000 observations," he continued, "have been compiled during the last ten years by the ice patrol vessels. The program has consisted in securing observations of temperature and saltiness at various depths in various positions, carefully selected in the danger area. The ocean currents have been computed from these data in accordance with a mathematical formula. It is based upon the principle that ocean currents are due to differences in the specific gravity of the water. Water will flow from the place where it is relatively light to another region where it is proportionately heavy. This, combined with the fact of earth rotation, permits us to issue regular weekly current maps, similar to the (*Turn to next page*)

Seven-day Weather Forecasts Coming

Meteorology

Weather forecasts for a week in advance may soon be possible. A new system of weather predicting that for 2 to 7 days in the future was right more than seven times out of ten was announced recently by Charles L. Mitchell, Washington district forecaster of the U. S. Weather Bureau.

At present the new system is not used in the daily work of the Weather Bureau, but for nearly a year the improved forecasts have been made experimentally each week and checked in order to determine the value of the method. The storm centers of the whole northern hemisphere for four successive days are charted on a map. Then from his knowledge of the habits of storms, Mr. Mitchell predicts where these storms will be each day for a week in advance. Giving due consideration to the probable severity and other characteristics of the storms, he is then able to issue forecasts for rain and temperature within the eastern half of the United States. For many years the Weather Bu-

reau has issued each Saturday morning an outlook in which is given the probable weather and temperature changes for the coming week, but the forecasters have not been satisfied with the record of verifications made. The new method devised by Mr. Mitchell gives results nearly twice as reliable for some of the weather factors.

The first storm to make a trip around the world, so far as weather records show, was also reported by Mr. Mitchell. It brewed in Montana on February 23, 1925, and after traveling 21,379 miles in encircling the globe dissipated over the Gulf of St. Lawrence on March 23. A recent study of weather data revealed this world's record.

Science News-Letter, July 14, 1928

An ostrich egg would make an omelet for eight people.

Pennsylvania is planning to establish a game farm to breed pheasant and wild turkey.

Birds War on Bears

Zoology

Yellowstone Park ravens and magpies evidently never heard of Elisha; at any rate they certainly have no fear of bears.

Ranger Thad Pound was making his rounds a short time ago when he noticed a great commotion among a flock of ravens and magpies. Upon investigation he found that the center of the disturbance was a very much distressed she bear with a pair of cubs, which were receiving the mauling of their lives from the birds' beaks. The cubs were rolled over on their backs, trying to defend themselves with their paws, while the mother was hard put to it to shield her lustily bawling offspring.

The occasion of the battle was the carcass of a winter-killed elk, on which the birds had evidently been feasting. Interrupted by the bears, they had resented the intrusion and turned to do battle with the uninvited guests.

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There are about 26,000 miles of fishing streams in California.