

NANSEN SAYS SUBMARINE MAP BIGGEST ARCTIC OBJECTIVE

The biggest geographical task awaiting voyagers to sail to the top of the world is to chart the depth of the Polar sea in all directions and to establish roughly the boundaries of the continental shelf. This is the opinion of Fridtjof Nansen, Norwegian scientist and arctic explorer, who outlines the remaining problem of the Polar region, in the April issue of the Forum.

The northernmost coast lines of the great continents, as they circle about the polar regions, have been located and surveys made. There may be islands, large or small, still waiting to be discovered in the Polar seas, but there is no likelihood that a great continuous mass of land has been overlooked by explorers, Dr. Nansen concludes.

What has not been done, he explains, is to map the northern fringes of the continents which are covered by comparatively shallow water. This under-sea land, known as the continental shelf, often extends far out beyond the visible coast and is a part of the continent itself. The edge of a continental shelf forms a cliff where the sea floor drops to the great ocean depths of several thousand feet.

"From the north of Siberia this continental shelf extends very far, for hundreds of miles," says Dr. Nansen. "Its surface, which is remarkably even, is not very far below sea-level, much of it being less than 150 feet down.

"It was over this remarkably shallow continental shelf that both the Jeanette (1879-81) and the Maud (1922-24) drifted along their two years' drift routes. Only at one place, namely north of the New Siberian Island, on the Fram's drift route in 1893, has the edge of this shelf been definitely located. At that place it was more than 300 miles north of the Siberian coast. At another point, about midway between the New Siberia Island and Cape Cheljuskin, the Russian expedition of 1913 took a sounding of 1,319 feet without reaching the bottom, and it seems probable that they were then at the edge of the shelf.

"North of Canada the continental shelf also extends for a great distance, but exactly how far is entirely unknown. North of Alaska, at Point Barrow and eastward, the edge of the shelf comes very near the coast."

The Norwegian expedition, of 1893-6, aboard the Fram discovered that there is a deep ocean basin, with depths ranging from 9,800 to 12,630 feet, in the regions near the North Pole, says Dr. Nansen. But how far the deep Polar sea extends and where it is broken by submarine ridges has not yet been investigated.

The importance of also studying the physical conditions of the Arctic wastes is emphasized by Dr. Nansen, who declares that "trying to discover the laws governing the circulation of our atmosphere without a knowledge of the polar regions and their physical conditions is comparable to the action of a man attempting to study the laws by which water circulates in the heating apparatus in a house, without knowing anything about the radiators that emit the heat."

It is generally recognized, he adds, that our weather is affected by meteorological conditions in the Arctic regions, and that observations of the different layers of the atmosphere, near the earth and at great heights, in different parts of the polar regions are of the greatest importance for understanding the laws which govern the weather.

Limitations of the airplane have been demonstrated by Amundsen's experiment, in the opinion of Nansen, but the airship he regards as much more promising. Given a large airship, capable of carrying a crew and equipment for investigations, he says, the most important geographical problems of the unknown north can be solved in the course of a few weeks.

INFLUENZA WAVE MAY BE RISING TO CREST

Are we on the verge of another influenza epidemic? Reports from such widely separated parts of the world as England, Mexico, and Russia may indicate the rising tide of a recurrent wave of influenza and pneumonia such as characterizes this little understood disease.

Vague rumors of a widespread outbreak of influenza in Russia, with hospitals in Moscow and Leningrad so full as to be obliged to turn away thousands of sufferers, have been current recently. The Russian Public Health Service in New York in a statement to Science Service now confirms these rumors, stating that personal correspondence from Moscow describes the suffering as intense. The Public Health Commissariat of Russia considers it the worst epidemic since the great pandemic of 1891.

Reports from the rest of Europe say that though influenza has been prevalent throughout the winter particularly in England, the crest is believed to have been reached about the beginning of the year. While precise information is lacking from Mexico, there is indication of outbreaks in both Mexico City and Hermosillo, capital of Sonora.

New York State has serious outbreaks in several upstate cities, with a record of 462 deaths from pneumonia and 76 from influenza for the week of March 7 in New York City alone, numbers that are larger than those reported for any corresponding week since the epidemic of 1918. Dr. Louis I. Harris, health commissioner of New York City says, however, that the situation is not alarming and that there is no epidemic.

Dr. Louis I. Dublin, statistician of the Metropolitan Life Insurance Company, in summing up the situation throughout the United States says, "From all indications, there is a very general outbreak of cases but these are of relatively short duration and not particularly dangerous to life." The Metropolitan figures indicate that the largest number of deaths from influenza and pneumonia during January and February have occurred in the southern and border states.

The first synthetic perfume was made in 1850.

European countries own over half of the tropics.
