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? WHY THE WEATHER ? Mailed October 23, 1933

AUDIBILITY IN HIGH LATITUDES

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The Rev. J. Gordon Hayes, in his book "Antarctica," gives a number of examples of the remarkable distances at which various noises have been heard in the polar regions. Shackleton heard the voices of Hurley and Macklin in conversation when they were about a mile and a half away on the Weddell Sea pack ice. One of the members of Shackleton's expedition told Mr. Hayes: "We used to hear old Crean cussing his dogs miles away." Scott wrote of hearing the barking of dogs, in calm weather, at a distance of seven or eight miles, and Mr. Hayes mentions by way of comparison that in England the baying of foxhounds can be heard, under favorable conditions, at a distance of three and a half miles. Ponting, of Scott's expedition, heard whales blowing in McMurdo Sound seven miles away and was able to time the periods of their blasts.

Audibility is favored by the dense air of high latitudes and perhaps also by the small but not too small amount of moisture present; but cases in which sounds have been heard at remarkable distances, whether in the polar regions or elsewhere, must be attributed to the existence of a temperature "inversion" -- an increase of temperature with elevation -- the effect of which is to bend back toward the earth sound waves that travel obliquely upward.

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