

2000 fathoms. Its eyes were very rudimentary—indeed it was almost blind—and it afforded every evidence that in its abyssmal habitat no light strayed down from the surface waters. The deep sea fauna may however be more varied than Nansen's fragmentary investigation appears to indicate. Perhaps the most remarkable facts to the minds of naturalists have been the discovery in polar waters of Copepods which are identical with, or closely allied to, species hitherto found in tropical waters and in some cases not nearer than twelve thousand miles. What can be the meaning of this strange occurrence of the same or similar animals in localities so far asunder? It is less surprising to find that some Calanoids, small crustaceans rarely larger than a grain of sand, were recognised at once by Sars as species he had got in deep fjords off the west and south shores of Norway, at depths never less than 100 fathoms. The conditions at that depth in the fjords are evidently the same as those characterizing the more superficial Arctic strata. A similar fact has long been known to naturalists in regard to the higher Amphipodan type, Norwegian and Swedish naturalists having described many species of Amphipods which were known to be Arctic also. Species of *Calanus* are widespread, and along the whole route of the "Fram" specimens were secured in almost every haul. Dr. Sars imagines that these minute crustacean worms have, for the most part, been carried north and east by a warmer Atlantic current flowing from the west beneath the cold Siberian current moving from the east, just as a cold northern current flows southward along the coast of Nova Scotia on the top of the deeper and warmer water of the Gulf Stream. Contrary to all previous hydrographical experience in the extreme north, the temperature was found by Nansen to rise as the thermometer descends in the water to greater depths, thus showing that the warmer currents referred to permeate and influence the conditions which prevail in the very heart of the ice world. Dr. W. B. Carpenter long advocated an hypothesis that a warm current "interdigitated" with an Arctic stream flowing south, but it had remained for Dr. Nansen to confirm it with some modifications. Nansen explains this deeper warmer current as the last remnants of the Gulf Stream spending itself in these frigid zones, a much more questionable theory than