

showed the existence of warmer water below the surface, and icebergs floating with any part of their mass in this stratum would have a greater tendency to decay than those less deeply immersed.

In the Pacific the distribution of the salinity differs considerably from that in the Atlantic. The latter ocean is divided sharply into two basins of concentration corresponding to the North and South Atlantic. In the Pacific only the southern concentration area is well marked; in the northern part of the ocean the variations in salinity are slight, and the mean saltness low. In no part of the North Pacific was the specific gravity observed above 1.0265, while in the southern part, in the region of the trade wind, it exceeds 1.0270, and the mean specific gravity is comparatively high. The maximum in the North Pacific is 1.02644 in lat. 30° 22' N., and in the south it is 1.02714 in 17° S. The equatorial minimum was 1.02475 in 7° 26' N. lat. in the Counter Equatorial Current.

If a line be drawn from Hong Kong to the east coast of Australia, and from Madras one to the west coast of Australia, a region will be enclosed which consists of land and water in nearly equal proportions. Many of the islands are almost continental in size, rise to a great height, and bear on their surface the most luxuriant vegetation of the world. The seas are generally of great depth, and cut off into remarkable separate basins. The amount of upheaval which would be required to transform what is now a sea studded with large and lofty islands into a continent enclosing extensive and deep lakes, would by the majority of geologists be considered quite insignificant. The physical conditions of these masked lakes are also peculiar, more especially as regards temperature. The density of the water, which may be looked on as at one season forming part of the Pacific, and at another part of the Indian Ocean, is remarkably low; and the reason of this is easily found. Lying, as these seas do, on and in the immediate neighbourhood of the Equator, they receive a large amount of rain falling directly on their surface, and in addition, the drainage of the islands in their neighbourhood. The air also above them is always in a state bordering on saturation with moisture, so that notwithstanding the very high temperature frequently attained by their surface waters, the amount of concentration possible is very small. The specific gravity of the greater part of this sea is under 1.0255; and a large area round the islands of Java and Sumatra is under 1.0250. Water so fresh as this is never met with elsewhere, except at the mouths of rivers, or in the neighbourhood of melting ice, although it is of local occurrence in the open sea after heavy rains in the equatorial regions. The saltness of these seas varies considerably at different seasons of the year; at least in the northern part of the China Sea this is remarkably the case. During the prevalence of the southwest monsoon, which is a wetting wind, the water was observed to have a much lower specific gravity than during the dry northeast monsoon; and in these seas there is a regular annual flux and reflux of waters between the Equator and temperate regions—a tide of long period due to the