

the amount of water in the Polar Sea. Moreover, the fact that the polar basin receives large supplies of fresh water is proved by the small amount of salt in the water of the polar current.

“From all these considerations it appears unquestionable that the sea around the Pole is fed with considerable quantities of water, partly fresh, as we have just seen, partly salt, as we indicated further back, proceeding from the different ocean currents. It thus becomes inevitable, according to the law of equilibrium, that these masses of water should seek such an outlet as we find in the Greenland polar current.

“Let us now inquire whether further reasons can be found to show why this current flows exactly in the given direction.

“If we examine the ocean soundings, we at once find a conclusive reason why the main outlet must lie between Spitzbergen and Greenland. The sea here, so far as we know it, is at all points very deep; there is, indeed, a channel of as much as 2500 fathoms depth; while south of Spitzbergen and Franz Josef Land it is remarkably shallow—not more than 160 fathoms. As has been stated, a current passes northward through Bering Strait and Smith Sound, and the sounds between the islands north of America, though here, indeed, there is a southward current, are far too small and narrow to form adequate outlets for the mass of water of which we are speaking. There is, therefore, no other assump-