

these circumstances occur, however, in the confined and contracted communication between the North Atlantic and the Arctic Sea. Between Cape Farewell and North Cape there are only two channels of any considerable depth, the one very narrow along the east coast of Iceland, and the other along the east coast of Greenland. The shallow part of the sea is entirely occupied, at all events during summer, by the warm water of the Gulf-stream, except at one point, where a rapid current of cold water, very restricted and very shallow, sweeps round the south of Spitzbergen and then dips under the Gulf-stream water at the northern entrance of the German Ocean.

This cold flow, at first a current, finally a mere indraught, affects greatly the temperature of the German Ocean; but it is entirely lost, for the slight current which is again produced by the great contraction at the Strait of Dover, has a summer temperature of $7^{\circ}5$ C. The path of the cold indraught from Spitzbergen may be readily traced on the map by the depressions in the surface isothermal lines, and in dredging by the abundance of gigantic amphipodous and isopodous crustaceans, and other well-known Arctic animal forms.

From its low initial velocity the Arctic return current, or indraught, must doubtless tend slightly in a westerly direction, and the higher specific gravity of the cold water may probably even more powerfully lead it into the deepest channels; or possibly the two causes may combine, and in the course of ages the currents may hollow out deep south-westerly grooves. At all events, the main Arctic