

tion left than that this mass of water must find its outlet by the route actually followed by the polar current. The channel discovered by the *Jeannette* expedition between Wrangel Land and the New Siberian Islands may here be mentioned as a notable fact. It extended in a northerly direction, and was at some points more than 80 fathoms deep, while at the sides the soundings ran only to 40 or 50 fathoms. It is by no means impossible that this channel may be a continuation of the channel between Spitzbergen and Greenland,* in which case it would certainly influence, if not actually determine, the direction of the main current.

“ If we examine the conditions of wind and atmospheric pressure over the Polar Sea, as far as they are known, it would appear that they must tend to produce a current across the Pole in the direction indicated. From the Atlantic to the south of Spitzbergen and Franz Josef Land a belt of low atmospheric pressure (minimum belt) extends into the Siberian Arctic Sea. In accordance with well-known laws, the wind must have a preponderating direction from west to east on the south side of this belt, and this would promote an eastward-flowing current along the north coast of Siberia, such as has been found to exist there.† The winds on

* The discovery during our expedition of a great depth in the polar basin renders it highly probable that this assumption is correct.

† The experience of our expedition, however, does not point to any such eastward-flowing current along the Siberian coast.