

in lat. 78 deg. 13 min. 36 sec. In 78 deg. 0 min. 50 sec. at four in the morning, lord Charles Cavendish's thermometer was 31, that of the air 40 and a half. At two in the forenoon at 115 fathoms, the water was 33 deg. at the surface 40 deg. and in the air 44 deg. and three quarters. July 16th, the greatest height of the thermometer was 58 deg. and a half, at eleven in the forenoon, and at midnight 57 deg. in lat. 79 deg. 50 min. long. 10 deg. 2 min. 30 sec. east. On the 19th of August, at eleven in the evening, an appearance of dusk was observed at Smeerenberg. On the 24th of September, stars became visible. The sight of a star, says captain Phipps, was now become almost as great a phenomenon as the sun at midnight had been two months, before, when we first got within the Arctic circle. The sky was in general loaded with hard white clouds, insomuch that the sun and horizon were never entirely clear of them, even in the clearest weather. The first Venetians who explored the northern extremity of the European continent, were struck with the greatest astonishment at the continual appearance of the sun above the horizon, and relate that they could only distinguish day from night by the instinct of the sea-fowl which went to roost on shore for the space of four hours. Pietro Quirino sailed in April 1431, and in January 1432 he was shipwrecked under the polar circle<sup>a</sup>. A bright appearance near the horizon was always the herald to signify the approach of ice; and this the pilots called the blink of the ice. And the same appearance was seen on captain Cook's voyage towards the south pole in 1773 and 1774. Dr. Irving tried the specific gravity of ice on board the Race-horse. A piece of the most dense cold ice he could find being immersed in snow water, thermometer 34 deg. 14 fifteenth parts sunk under the surface of the water.\* In brandy, just proof, it barely floated: in rectified spirits of wine it fell to the bottom at once, and dissolved immediately.

<sup>a</sup> Navigazioni et Viaggi raccolti da G. B. Ramusio, Venet 1574. \* See p. 371.