

1682-3.

The tide, which comes impetuously from the ocean to enter the bay, is stopped by the ice. This resistance changes its course, and produces counter-currents which cross each other, and, together with the nitre, of which these seas are full, produce a fermentation, which makes the surface of the water boil up. These seas are, I say, full of nitre, and this cannot but be the case, considering the quantity of melted snow and ice which they receive. Moreover, it has been remarked that the plates of lead used to cover the touchhole of the cannon, will be found in the morning covered with nitre, and that when any one is bled on the vessels or in the forts, the opening of the vein is soon all fringed with it.<sup>1</sup> Now it is certain that this abundance of nitre, with the change of climate, the salt food to which they are compelled to resort on these voyages, and the little exercise taken, causes great maladies. Hence it is rare that a vessel does not lose half its crew.

Phenomena  
in the air.

Another phenomenon which appears in the air would well deserve an investigation into its cause. In the clearest weather there are suddenly seen in the midst of the night clouds of most brilliant white. Even when not a breath of air can be perceived, these clouds are impelled with very great celerity, and assume every kind of shape; the darker the night, the more brilliant the light. It is at times so vivid, that you can read by it more easily than by that of the full moon.

It will, perhaps, be said that this is only a refraction of the rays of the sun, which at this altitude is not far from the horizon during the summer nights, and even while there is no wind in the lower region of the air, there may be in the upper, which is true; but what induces me to think that there must be some other cause for this meteor

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<sup>1</sup> De la Potherie, Histoire de l'Amérique Septentrionale, i., pp. 62, 63. He does not ascribe the nitre to the snow-water, but to caves in the rocks: i., p. 62.