

varieties of the kidney-bean, remarkable for the beauty of their seeds, but the Rev. M. J. Berkeley<sup>15</sup> found that their beauty could hardly ever be preserved in England, and in some cases the colour was greatly changed. We have seen in the ninth chapter, with respect to wheat, what a remarkable effect transportal from the north to the south of France, and conversely, produced on the weight of the grain.

When man can perceive no change in plants or animals which have been exposed to a new climate or to different treatment, insects can sometimes perceive a marked change. A cactus has been imported into India from Canton, Manilla Mauritius, and from the hot-houses of Kew, and there is likewise a so-called native kind which was formerly introduced from South America; all these plants belong to the same species and are alike in appearance, but the cochineal insect flourishes only on the native kind, on which it thrives prodigiously.<sup>16</sup> Humboldt remarks<sup>17</sup> that white men "born in the torrid zone walk barefoot with impunity in the same apartment where a European, recently landed, is exposed to the attacks of the *Pulex penetrans*." This insect, the too well-known chigoe, must therefore be able to perceive what the most delicate chemical analysis fails to discover, namely, a difference between the blood or tissues of a European and those of a white man born in the tropics. But the discernment of the chigoe is not so surprising as it at first appears; for according to Liebig<sup>18</sup> the blood of men with different complexions, though inhabiting the same country, emits a different odour.

Diseases peculiar to certain localities, heights, or climates, may be here briefly noticed, as showing the influence of external circumstances on the human body. Diseases confined to certain races of man do not concern us, for the constitution of the race may play the more important part, and this may have been determined by unknown causes. The *Plica Polonica* stands, in this respect, in a

<sup>15</sup> 'Gardener's Chronicle,' 1861, p. 1113.

<sup>16</sup> Royle, 'Productive Resources of India,' p. 59.

<sup>17</sup> 'Personal Narrative,' Eng. transl., vol. v. p. 101. This statement

has been confirmed by Karsten ('Beitrag zur Kenntniss der Rhyngchoprion :' Moscow, 1864, s. 39), and by others.

<sup>18</sup> 'Organic Chemistry,' Eng. transl., 1st edit., p. 369.