

lofty regions of the Cordillera, are, as I hear from Mr. D. Forbes, strange little creatures, very unlike their Spanish progenitors. Further south, in the Falkland Islands, the offspring of the horses imported in 1764 have already so much deteriorated in size<sup>20</sup> and strength that they are unfitted for catching wild cattle with the lasso; so that fresh horses have to be brought for this purpose from La Plata at a great expense. The reduced size of the horses bred on both southern and northern islands, and on several mountain-chains, can hardly have been caused by the cold, as a similar reduction has occurred on the Virginian and Mediterranean islands. The horse can withstand intense cold, for wild troops live on the plains of Siberia under lat. 56°, <sup>21</sup> and aboriginally the horses must have inhabited countries annually covered with snow, for he long retains the instinct of scraping it away to get at the herbage beneath. The wild tarpans in the East have this instinct; and so it is, as I am informed by Admiral Sullivan, with the horses recently and formerly introduced into the Falkland Islands from La Plata, some of which have run wild; this latter fact is remarkable, as the progenitors of these horses could not have followed this instinct during many generations in La Plata. On the other hand, the wild cattle of the Falklands never scrape away the snow, and perish when the ground is long covered. In the northern parts of America the horses descended from those introduced by the Spanish conquerors of Mexico, have the same habit, as have the native bisons, but not so the cattle introduced from Europe.<sup>22</sup>

The horse can flourish under intense heat as well as under intense cold, for he is known to come to the highest perfection, though not attaining a large size, in Arabia and northern Africa. Much humidity is apparently more injurious to the horse than heat or cold. In the Falkland Islands, horses suffer much from the dampness; and this

<sup>20</sup> Mr. Mackinnon on 'The Falkland Islands,' p. 25. The average height of the Falkland horses is said to be 14 hands 2 inches. See also my 'Journal of Researches.'

<sup>21</sup> Pallas, 'Act. Acad. St. Peters-

burgh,' 1777, part ii. p. 265. With respect to the tarpans scraping away the snow, see Col. Hamilton Smith in 'Nat. Lib.,' vol. xii. p. 165.

<sup>22</sup> Franklin's 'Narrative,' vol. i. p. 87; note by Sir J. Richardson.