

a point on the Oxus corresponding to the western limit of the district called Khoja Saleh, and that, as the Afghans possessed this tract at the time of the earlier agreement, they should be allowed to retain it. This would, moreover, be in strict accordance with the principle laid down on that occasion; viz., that Afghanistan should be considered identical with the actual possessions of the Ameer Shere Ali.

To sum up the points presented by the Kham-i-Ab question, Russia has in her favor the specific mention of the name Khoja Saleh in the diplomatic documents. Beyond this fact, strong as it undoubtedly is, Russia does not seem to possess a weighty argument. On the other hand, there is the Afghan right of possession, unquestioned by anybody, going back for a long period, and confirmed in 1873. There is the recognition in 1873 of the Khanate of Akcha forming part of the dominions of Shere Ali, and consequently of Afghanistan. Finally, there is the practical fact that the Kham-i-Ab of the Afghans occupies almost the identical geographical site of the 'Khodsha Salor' of the Russians. Extraneous arguments may be easily introduced into the case by irresponsible writers; but these are really all the considerations that need affect the judgment of the two governments.

PACIFIC COAST WEATHER.

LIEUT. W. A. GLASSFORD, in charge of the Pacific coast division of the signal service at San Francisco, has lately presented a paper to the California academy of sciences on 'Weather types on the Pacific coast.' These types differ from those of the eastern United States in their relative lack of progressive motion, and consequently in their duration and in the less variability of the weather. Distinct areas of low pressure are rare in southern California, but increase in frequency northward, until they are most numerous about Vancouver's Island. The types recognized for the rainy season (winter) are, 1°, North Pacific cyclonic; low pressure over Oregon and Washington, high pressure in the Great Basin, with southerly gales along the coast, and general rains, heaviest in the north; 2°, interior anticyclonic; like the preceding, but with less distinct cyclonic conditions; the temperature is high with south-easterly winds; the warm 'Santa Anna' winds of Los Angeles occur under this distribution of pressures; 3°, North Pacific anticyclonic; high pressure in the north, and low in the south, giving clear weather with light, variable winds in the north, but with high winds and southerly gales on the coast of California; warm days and cool nights, often frosty;

the dreaded dry 'north wind' of the Sacramento and San Joaquin valley prevails at this time; 4°, general cyclonic; a rare type, with very low pressure on the coast, giving severe storms of high southerly winds and heavy rain; 5°, South Pacific anticyclonic; moderately high pressure along the south-western coast of California, and no distinct centre of low pressure visible, but giving southerly rain-bearing winds; 6°, sub-normal type; irregular isobars and no decided gradients, with variable winds and weather. During the dry season (summer), the weather is very constant, with high pressure to the north-west over the cool ocean, and low pressure over the hot land to the south-east, northerly winds and no rain. The change from the wet season to the dry is indicated when the air temperature on the coast rises permanently over the ocean temperature. Lieutenant Glassford has also compiled an extended table of the rainfall on the Pacific coast from all sources, including some two hundred stations with records varying from one or two years up to thirty-seven (San Francisco and Sacramento). This was published in the San Francisco daily *Commercial news* for July 1, 1886. The maximum precipitation is given for Neah Bay, Washington Territory, where the annual average of nine years' record is 110.12 inches. Many other stations in the north exceed fifty and sixty inches a year. In the south, the minimum falls nearly to two inches, being 2.56 at Yuma, Arizona, from an eleven-year record. The lowest of all is a three-years' average for Bishop Creek, Cal., where the annual precipitation is only 1.31 inches. The table gives the months separately, as well as the yearly total, so that the seasonal variation is well brought out. In July and August only nine and ten stations respectively have over an inch of rain, and these are all in the north or in the interior; while no rain at all is given for eighty-two and ninety stations, and a number more have only a trace or one or two hundredths of an inch.

DR. ROMANES ON PHYSIOLOGICAL SELECTION.

DR. GEORGE J. ROMANES, who, in more than a literal sense, may be said to be the legatee of Darwin, publishes in *Nature* (Aug. 5, 12, 19) an abstract of a paper read before the Linnean society, entitled "Physiological selection: an additional suggestion on the origin of species."

The necessity of such an additional principle is made evident by considering three objections to natural selection as a theory of the origin of species. 1°. The difference between species and varieties in respect of mutual fertility. It is a fact