

Calendar of Geographical Exploration.

Jan. 10, 1811.—The Rocky Mountains.

David Thompson discovered the Athabaska Pass, along the main route over the Rockies to Columbia. Thompson was one of the greatest land explorers, covering at least 50,000 miles of mainly unknown country and recording his surveys accurately and fully. For twenty-seven years he made innumerable astronomical observations on long journeys. The result was a survey of south-western Canada from Lake Superior to the mouth of the Columbia river, making possible the accurate mapping of its mountains, rivers, and lakes. Regions of the 'muskrat' country, north-east of Cumberland House, have never been visited since his time. Later, Thompson worked on the boundary survey after the Anglo-American war. Recognition of the importance of his work was tardy, for poverty prevented him from publishing either a map of his explorations or his "Narrative" or "Journals".

Jan. 11, 1930.—The South Arabian Desert.

Bertram Thomas set out on his second journey into the Rub'al Khali, when he penetrated almost to the centre of that arid waste. His journeys covered ground practically unvisited previously by any European, though Wellstedt, from the crest of Jebel Akhdar in 1836, had seen the great desert in the distance. Much new scientific information is now available about the region, including the first account of its drainage system.

Jan. 12, 1878.—The Heart of Arabia.

Wilfrid Scawen Blunt and his wife left Meskakeh to cross the Nafud desert southwards to Jabal Shammar. The poet and his wife, who was a granddaughter of Byron, had developed a romantic sympathy with bedouin society, and had been initiated into desert life among the Anaze and Shammar tribesmen of the Hamad and the Mesopotamian steppes. Blunt journeyed to Jauf in quest of a bride for his 'blood-brother', a young Arab of the Palmyrene oasis. Thence he and Lady Anne decided to visit the Emir of the Shammar as European guests. Their achievement in travelling openly, with a woman in the party, through the strongholds of Arabian fanaticism is remarkable. Their records proved of the utmost value for the geography of this little-known region.

Jan. 13, 1772.—Marion and Crozet Islands.

N. T. Marion du Fresne discovered the islands now bearing the above names. Bougainville, on his voyage round the world, 1767-69, had brought back with him a native of Tahiti as a 'human curiosity'. The French Government wished to return the native to his home. Marion volunteered to take him to Tahiti, and sailed from Ile de France (Mauritius) in October 1771 with two vessels. The unfortunate native contracted small-pox and died while the ships were anchored off Madagascar. Marion thereupon decided to go southwards to search for the antarctic continent. He named the island which he discovered on Jan. 13 Terre de Espérance, because it gave him the hope that he was near the southern continent. The islands are bare and rocky, but the weather was foggy, and a multitude of white spots led the discoverers to think that there were flocks of sheep upon them. The *Challenger* expedition, 1872-76, explored the islands and found these spots to be moss patches. Marion's expedition went on to New Holland (Australia) and New Zealand. It made a stay of some duration in the latter, but Marion was murdered by the natives, and his lieutenant, Crozet, brought the vessels home.

The account of the voyage, with its full descriptions of Maori life, was compiled from Crozet's log.

Jan. 14, 1699.—Australia and the East Indies.

William Dampier sailed from the Downs on H.M.S. *Roebuck*, one of the earliest government expeditions sent out from Great Britain purely for discovery. Dampier's account of his former voyage in the *Cygnet*, when he had observed the shores and natives of New Holland (Australia), had roused the interest of the Earl of Pembroke, then Lord High Admiral, and Dampier was commissioned to explore the southern seas. He anchored in Shark's Bay, on the western coast of Australia, on July 7, 1699, and thence surveyed the coast for 900 miles. Leaving Australia, he discovered Dampier Strait, between New Guinea and Waigiu. He also proved that New Britain is an island separate from New Guinea, and surveyed much of its coast.

Jan. 16, 1772.—Kerguelen Island.

Yves Joseph de Kerguelen-Trémarec, a Breton noble, sailed from the Ile de France (Mauritius) commissioned by the French Government to search for "a very large continent to the south of the islands of St. Paul and Amsterdam", a land on which the Sieur de Gonneville was supposed to have stayed in 1504. He found a land which he named South France. He thought it formed the central mass of the antarctic continent, and held out high hopes of its commercial importance. But on a second expedition in 1773 he discovered it to be bleak and barren, and Cook had in the meantime sailed far to the south of it in open seas, so that Kerguelen now knew it to be an island. He renamed it the Land of Desolation. It is to-day called Kerguelen Island in honour of its discoverer, and has from time to time been used as a base for valuable scientific observations.

Societies and Academies.

LONDON.

Royal Meteorological Society, Dec. 16.—W. C. Kaye and C. S. Durst: Some examples of the development of depressions which affect the Atlantic. Three typical cases show examples of: (1) a polar depression being intensified by the introduction of warm air from the Gulf of Mexico; (2) the formation of a family of depressions between Pacific maritime polar air and warm Gulf air; (3) the formation of depressions on a quasi-stationary front. A majority of the families of depressions which cross the Atlantic originate in one or other of these ways.—Alfred A. Barnes: (1) Rain-gaugings near Belper and Duffield, Derbyshire. A complete analysis of the yearly readings taken at 19 rain-gauges at the southern end of the Pennine Chain during a period of 66 years from 1865 to 1930 inclusive.—(2) Rainfall reviewed: a common long-average period for each country of the British Isles. A new survey during a period of 68 years from 1863 to 1930 inclusive.—W. H. Pick: Visibility with saturated air. The horizontal visibilities at Worthy Down and Felixstowe, over a period of four years, whenever the air was saturated are examined. All degrees of visibility (except the very best) were well represented. A large percentage of the cases of saturated air were unaccompanied by either fog or mist. The effect of wind force upon the visibility accompanying saturated air is also examined.

PARIS.

Academy of Sciences, Nov. 30.—G. Bigourdan: An influence of the moon.—Lucien Cuénot was elected a non-resident member in succession to the late Eugène