striped and marked. It is a singular fact that the fly has never been seen to eat. M. Valisnieri repeatedly offered these insects sugar and syrup but they could not be induced to touch it, although he kept one of The flies, both male and them more than two months. female, seem to be inert and sleepy things, and are generally to be seen on the rails and walls in the neighbourhood of some flock of sheep. Both French and English writers give a fearful account of the mischief which the larva effects in its dark abode. Gasparian (Manuel d'Art Veterinarie, p. 468) speaks of frequent convulsions, giddiness, and half unconsciousness, distinguished from turn sick by the violent sneezing with which it is accompanied. I have been unable to find out in any of the works on the disease of sheep whether the insect causes death.

TENTATIVE LIST OF THE NAVIGATORS WHO VISITED VAN DIEMEN'S LAND PRIOR TO SEPTEMBER 1803.

By James Roxburgh McClymont, M.A. [Read October 13, 1884.]

My object in reading this list of early navigators is mainly to call attention to the paucity of information within our reach regarding geographical discovery in Tasmania—a defect which it is increasingly difficult to remedy, seeing that the works which contain such information are being eagerly bought up for the libraries of Europe, America, and the other colonies. For this reason the list I now submit is purely tentative. I trust that steps may be taken to supply the deficiency and that, meanwhile, those who possess works in this department of research in their private collections will make the fact known.

I choose September 1803 as a limit, partly because it is the date of arrival of the first colonization party* and is therefore a convenient historical landmark, partly because it approximates the period at which finality in the delineation of the Tasmanian coast-line was attained by the determination of the peninsular character of the Ile d'Abel-Tasman of Dentrecasteaux, and by the discovery of Géographe

^{*} Rusden's History of Australia. i. p. 336.

Strait—finality, at least, so far as explorers from without the colony were concerned. Further corrections, due to the discovery of new harbours on the West Coast, originated with

explorers within the colony.

I have restricted this list to those navigators who actually landed or at least anchored off the coast, appending the names of one or two who only sighted it. Following the names are the dates of their visits, from the day on which land was sighted to that on which they lost it inclusive, so far as I have been able to ascertain, and the bibliographical description of the most complete known record of the voyage.

The list is as follows:-

ABEL JANSSEN TASMAN. Nov. 24—Dec. 5, 1642.

Tasman (Abel Janz). Journal van de Reis naar het onbekende Zuidland in den Jare 1642. Medegedeeld door Jacob Swaart. 8° Amsterdam. 1860.

Marion. March 3-10, 1772.

Crozet. Nouveau voyage à la Mer du Sud commencé sous les ordres de M. Marion et achevé sous ceux de M. le Cher: Duchesmeur. Redigée d'après les plaus et journaux de M. C[rozet. By A. M. de Rochon]. 8° Paris. 1783.

Tobias Furneaux. March 9-19, 1773.

Cook (James). A voyage towards the South Pole and round the world performed in His Majesty's Ships the Resolution and Adventure. 2 vols. 4° Lond. 1777.

James Cook. Jan. 24-30, 1777.

Cook (James) and King (James). A voyage to the Pacific Ocean in His Majesty's Ships the Resolution and Discovery. 3 vols. 4° and atlas fol. Lond. 1784.

WILLIAM BLIGH. Aug. 19—Sept. 4, 1788.
Bligh (William). A voyage to the South Sex.
4° Lond. 1792.

The same. February 1792.

"Plusieurs inscriptions gravées sur des pieds d'arbres nous firent connaître que le Capitaine Bligh avoit mouillé dans cette baie (Adventure Bay) au mois de février 1792." (Labillardiére, Relation du voyage à la recherche de la Pérouse. ii. p. 77.)

John Henry Cox. July 1789.

Mortimer (George). Observations and remarks during a voyage to the Island of Teneriffe, Amsterdam, Maria's Islands. 4° Lond. 1791.

Bruny Dentrecasteaux. April 21—May 28, 1792, and Jan. 18—Feb. 27, 1793.

Rossel (N. de). Voyage de M. Dentrecasteaux envoyé à la recherche de la Pérouse. 2 vol. 4° et atlas fol. Paris. 1808.

JOHN HAYES. 1794.

On the authority of Low and other writers.

MATTHEW FLINDERS (and George Bass). Oct. 18, 1798— Jan. 8, 1799.

Flinders (Matthew). A voyage to Terra Australis in the Investigator, the Porpoise, and the Cumberland. 2 vols. 4° and atlas fol. Lond. 1814.

NICOLAS BAUDIN. Several visits between January and June 1802.

> Péron (François). Voyage de découvertes aux terres australes. Historique. Continué par M. L. Freycinet. 2 vol. 4° et 2 atlas. Paris. 1807-16. Freycinet (Louis). Le même. Navigation et Géographie. 4° et atlas fol. Paris. 1815.

WILLIAM RAVEN. Prior to June 1802.

"Mr. Raven on his return to England in the Buffalo, putting into Adventure Bay, cut off some undoubted wool from the head of a native that he fell in with there." (Collins' Account of the English Colony in New South Wales. ii. p. 188. note.) *

The tender Supply of Phillip's 'first fleet' sighted Van Diemen's Land about half-past ten on 3rd January, 1788. (The voyage of Governor Phillip to Botany Bay. App. p. x.) Flinders embarked in the schooner Francis when she went to bring off the cargo of the Sydney Cove (wrecked between Preservation and Rum Islands), in order to make such discoveries as circumstances might admit of, and sighted the North-east Coast on Feb. 25, 1798. (Terra Australis. i.pp. exxxvi-exxxvii.)

The journal of Tasman was first published in full by the firm of Van Keulen, Amsterdam, in 1860, under the editorship of Jacob Swaart, who discovered a MS. of it in the collection belonging to that firm. There is no copy of this work in any of the public libraries of the colony; the library of this Society

^{*} According to Collins, H.M.S. Buffalo arrived from England on May 3, 1799. (ii. p. 208.) Raven, who had been in command of this ship, left for England as a passenger by the whaler Britannia on Dec. 2 of the same year. (p. 273.) The Buffalo, having meanwhile made a trip to the Cape of Good Hope, left for England on Oct. 21, 1800, (p. 306.) and arrived there May 24, 1801, (p. 306. note.) Collins' Dedication is signed June 26, 1802. It may be presumed that the author of the note quoted wrote Buffalo for Britannia.

possesses Burney's Chronological History of the Voyages and Discoveries in the South Sea. 4 pts in 2 vols. 4° Lond. 1803-16, the third part of which contains a brief abridgement of Tasman's Journal, taken from a translation of an old but defective MS. which, at the time of publication, was in the possession of Sir Joseph Banks.

The visits of Furneaux and Cook are recorded in Cook's Voyages, which are in one or two Tasmanian libraries, but the above-mentioned works of Crozet, Bligh and Mortimer are

still awanting.

The only work regarding the important discoveries of Dentrecasteaux and his assistants which is available to inquirers is that of Labillardière; a translation is in the Royal Society's library. This is a personal narrative of the voyage varied with a few botanical and zoological descriptions, but omitting the reports of the various exploring and surveying parties which were despatched from the ships. are supplied by De Rossel along with the resulting charts in the above-cited volumes which are not obtainable here.

There are several copies of Flinders' Terra Australis in Hobart libraries, but they are defective as regards the atlas published to illustrate the text. The volumes of Péron and Freycinet are still desiderata in any library available to the

public.

The draughtsman who accompanied Tasman's expedition has left us sketch-maps of Stoorm Bay, Frederik Hendriks Bay and Anthony Van Diemens Landt and several coast-The sketch-maps are reproduced in Burney's abridgement,* but not the coast-views, and as they possess great historical interest as the oldest views of Tasmania, it is most desirable that copies of them should be procured for the colony. They are to be found in Valentyn's (François) Oud en nieuw Oost-Indien. 5 tom. fol. Dordrecht. 1724-26,† republished at the same place in 1824-26, a work which contains a fund of information regarding early Asiatic and Polynesian discoveries. The next map with which I am acquainted, that contains an outline of the Tasmanian coast, is one executed in 1644 by command of Van Diemen. It delineates as much as was then known to the Dutch of Australia including New Guinea (Compagnis Niev Nederlandt and Noua Guina), New Zealand (Staetelandt), Tasmania (Anthonio Vandiemenslandt), and the islands of the South Pacific, and shows the course of Tasman in the voyages of 1642 and 1644. There is a copy of this map in the edition of the journal by The third map known to me, which introduces Van

^{*} iii. pp. 67 and 70. † iii. p. 48. § i. p. 50.

Diemen's Land, is one published in the Relation de divers voyages curieux. 4 parties en 2 vol. fol. Paris. 1663-96.§ This work, edited by Melchisedech Thévenot, contains a portion of what is known as the Stadthouse Map, which consisted of two projections of the terrestrial and one of the celestial sphere carved in stone on the floor of the great hall of the Amsterdam Stadthouse, which was built in the year 1648. The portions relating to New Guinea (here separated from Australia), Hollandia Nova, Zeelandia Nova, and Anthoni Van Diemens Landt are evidently based upon the two earlier charts, and have been preserved by Thévenot and reproduced by Harris in his Navigantium atque Itinerantium Bibliotheca, 2 vols. fol. Lond. 1744-48. Marion, Furneaux, Cook, Dentrecasteaux, Flinders, and Baudin, have left charts which are to be found in the works abovementioned.

There is a chart of the Derwent emanating from the expedition of Hayes; but that, along with the memoirs of the expedition was captured by a French man-of-war, and transferred to a public institution in Paris. (v. Low's History of Indian Navy, i. p. 200.)

SUMMARY OF OBSERVATIONS ON EARTHQUAKE PHENOMENA MADE IN TASMANIA DURING 1883 AND 1884.

By Commander Shortt, R.N., Meteorological Observer, Hobart.

[Read November 17, 1884.]

During the last eighteen months Tasmania has been visited by so many earthquake shocks, that general interest has been excited and favourable opportunities afforded for studying

some of the phenomena connected with them.

Unfortunately for scientific purposes we have not yet experienced a really serious and destructive shock, such as would have rendered the island famous, and perhaps have afforded the survivors opportunities of adding largely to what is known about earthquakes. Some of the shocks, however, have been sufficiently pronounced to be readily felt over large areas, and a number of intelligent observers have carefully recorded what they observed, and the reports received