

## PRINCIPAL LAKES IN TASMANIA.

Name.	Area in Acres.	Length. Miles.	Breadth. Miles.	Special Remarks. (See Foot-note.)
Great Lake ... ..	28,400	12	7	(1)
St. Clair ... ..	9,500	8 $\frac{3}{4}$	2 $\frac{3}{4}$	(2)
Echo ... ..	7,400	6 $\frac{1}{2}$	3 $\frac{1}{4}$	—
Arthur ... ..	9,000	4	3	—
Woods ... ..	2,500	3	1 $\frac{3}{4}$	—
Sorell ... ..	12,200	5	6	(3)
Crescent ... ..	4,000	3 $\frac{1}{2}$	2 $\frac{1}{2}$	(3)

(1). The Great Lake, which is a favoured resort of tourists, is accessible by vehicle from the railway stations at Apsley, Parattah, and Tunbridge, and is distant 48 miles from the two first-named places, and 41 $\frac{1}{2}$  miles from the last-named.

(2). Lake St. Clair, from which the River Derwent takes its rise, is about 120 miles from Hobart by road, and 80 miles from the Macquarie Plains railway station. It stretches along the eastern base of Mount Olympus, and is fringed by a dense growth of mountain foliage.

(3). Lakes Sorell and Crescent lie along the routes to Great Lake, being 24 miles from Parattah and 13 $\frac{1}{2}$  miles from Tunbridge.

## § 3. The Fauna of Australia.

1. **Introduction.**—An authoritative article describing in some detail the principal features of the Fauna of Australia was given in Year Books No. 1 (see pp. 103 to 109) and No. 2 (see pp. 111 to 117), while a synoptical statement appeared in No. 3 (see pp. 73 to 76). Considerations of space will, however, preclude the inclusion in this issue of more than a passing reference to the subject.

## § 4. The Flora of Australia.

1. **Introduction.**—In Year Books No. 1 (see pp. 109 to 114) and No. 2 (see pp. 117 to 122) a fairly complete though brief account was given of the Flora of Australia, and in Year Book No. 3 similar information in a greatly condensed form will be found on pp. 76 to 78. Space in this issue will not permit of more than a mere reference to preceding volumes.

## § 5. Seismology in Australia.

1. **Introduction.**—The following brief notes regarding the present position of Seismology in Australia have been compiled from data furnished by the Government Astronomer of Victoria (P. Baracchi, Esquire) and the Director of the private observatory attached to Riverview College (Rev. E. Pigot, S.J.), Sydney.

2. **Seismological Installations at State Observatories.**—(i.) *Introductory.* At the present time no State organised service exists in Australia to undertake the work of obtaining earthquake records from localities outside the capitals. According to the latest report of the Committee on Seismology, however, it would not be difficult to recruit a number of voluntary observers in each State, to report seismic phenomena in accordance with a uniform plan. These observers need not necessarily be supplied with any special instrumental equipment.

(ii.) *Sydney Observatory.*—The records at this institution are obtained by means of a Milne seismograph. During the year 1907, 96 tremors were experienced, of which 68 were under 1 mm. amplitude, and in 1908, 82 tremors were recorded, of which 60 were less than 1 mm. amplitude. More than 70 per cent. of the total disturbances recorded were, therefore, only thickenings of the light line.

(iii.) *Melbourne Observatory.*—This observatory possesses a Milne horizontal pendulum, which is located in an underground room in the main building, and records photographically. The average period of the boom ranges from 16" to 17", the time scale being 60 minutes per hour, and the angular value of an amplitude of 1 mm. on the records is 0.4". As is the case with the Sydney Observatory, all seismograms have been measured, classified, and arranged in appropriate records.

(iv.) *Adelaide Observatory.*—A Milne horizontal pendulum seismograph was erected at this Observatory in 1908. The seismograph, which is of the latest pattern, has been set up with the boom in the meridian, the free end of the boom being to the north.

(v.) *Perth Observatory.*—The seismograph at this institution was erected in 1901, and is of the Milne horizontal pendulum type. It is mounted on brick pillars with a marble table-top, the pendulum pointing due north. The pillars rest on a concrete floor about 8 feet underground and 200 feet above sea level. Observations are regularly arranged and classified, and the results sent every six months to the British Association.

(vi.) *Riverview College Observatory, Sydney.*—The seismological cellar (half underground) is situated in a secluded portion of the College grounds remote from any artificial source of vibration. There are three seismometers, each mounted on massive concrete piers with rock foundations. Of the two Wiechert instruments, No. 1 is a 1000 Kilo horizontal seismometer, with astatic pendulum, and E.W. and N.S. Components; and No. 2 is an 80 Kilo vertical seismometer. These were installed early in 1909. A third instrument of the Wiechert pattern was to be erected early in 1910. The Mainka instrument is a horizontal seismometer, with bifilar conical pendulum, and E.W. and N.S. components. The Observatory publishes monthly bulletins giving full records of earth movements.

3. **Publication of Records.**—The Secretary of the Seismological Committee of the British Association collects and publishes the seismic records obtained at observatories in every part of the world (including Australia), and an International Seismological Association also deals with similar records.

4. **Seismic Disturbances in Australia.**—The local earth tremors recorded in Australia have, so far, been of a very minor character, and at no time has there been an earthquake shock of sufficient intensity to cause loss of life or extensive damage to property.