

Circular No. 19, issued by the Seismological Committee, Professor H. H. TURNER, F.R.S. (Chairman), Mr. JOHN MILNE, F.R.S., *Shide, Isle of Wight* (Secretary).

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I. *General Notes on Registers from Similar Horizontal Pendulums (Milne Type).*

THE following registers are continuous with those published by the Seismological Investigation Committee in their first eighteen circulars and in the Reports of the Association, 1896 to 1899.

If observers will kindly send a copy of their register, together with copies of their more important seismograms, to the Secretary of the Seismological Investigation Committee, British Association, Burlington House, London, W., as early as possible after June 30, and again after December 31 of each year, the interval of time which must elapse before they receive copies of the registers of co-workers in various parts of the world will be considerably reduced.

The time employed is Greenwich mean time (civil), expressed in hours, minutes, and in decimals of minutes. 24 or 0 hours = midnight.

Amplitude indicates half of the complete range of the maximum motion, and is expressed in millimetres. Values less than 1 millimetre refer to the thickening of the line and indicate half its width.

As 1° turn of the calibrating screw in the bed-plate of the instrument causes a tilt of 1"·9, and as this is accompanied by a measurable displacement of the outer end of the boom, it is easy to determine the angular value corresponding to a 1 millimetre displacement. This quantity should be stated at the end of each register.

II. *Registers.*

The Register from Shide, Newport, Isle of Wight, England.
Director, JOHN MILNE; Assistants, MESSRS. HIROTA AND BURGESS.

The following entries refer to records obtained from three pendulums, A, B, and C. The periods and "sensibilities" or deflections for 1° turn of the calibrating screw were as follow:—

- A. Period 13 seconds. 1° turn = 2 mm.
- B. Period 18 seconds. 1° turn = 3 mm.
- C. Period 20 seconds: after November 23 period was 23 seconds. This pendulum records N.S. motion and is without a calibrating screw. A and B record E.W. motion.

Ats. = Air tremors. P₂ refers to the commencement of the second phase of motion.

No.	Date	Commence- ment	Max.	Max. Ampli- tude	Dura- tion	Remarks
1908						
1596	July 1	H. M.	H. M.	MM.	H. M.	
		8 15·3	8 28·5	0·2	0 33	A.
		8 14·8	8 28·0	0·4	0 45	B.
1597	,, 7	8 14·3	8 20·8	0·4	0 45	C.
			8 29·3			
		4 24·4	4 38·4	0·2	0 37	B.
1598	,, 8	4 24·4	4 36·4	0·2	0 41	C.
		12 55·3	13 7·8	0·4	1 13	A.
		12 42·0	13 7·5	0·7	1 38	B.
1599	,, 10	12 42·1	13 9·5	0·6	1 42	C.
			2 21·0	0·2	—	A.
		2 15·0	2 22·0	0·5	1 0	B.
1600	,, 13	2 15·0	2 22·0	0·5	1 0	C.
		21 24·7	21 56·5	0·2	1 56	B.
		21 20·2	21 53·2	0·5	2 9	C.

The Register from Shide, Newport, Isle of Wight, England—continued.

No.	Date	Commencement		Max.		Max. Amplitude	Duration	Remarks
		H.	M.	H.	M.			
1601	July 26	16	29.4	17	9.4	—	1 21	B. } On A also, but times uncertain. C. } Times not quite certain.
		16	31.4	17	9.4	—	1 21	
1602	Aug. 4	2	14.3	2	20.8	0.5	0 58	B.
1603	,, 9	2	14.3	2	22.3	0.4	1 4	C.
		19	7.5	19	16.1	0.2	0 52	A.
		19	5.6	19	13.8	0.5	0 54	B.
1604	,, 12	19	3.8	19	12.1	0.4	0 58	C.
		15	53.4	17	8.2	0.2	> 1 35	B. A, tremors.
1605	,, 12	15	53.2	17	9.7	0.6	> 1 35	A.
		19	4.4	19	17.2	0.3	2 0	C.
1606	,, 14	19	3.4	20	0.4	0.5	2 50	B.
		19	3.4	19	58.7	0.6	2 25	C.
		1	6.1	1	35.9	0.5	2 39	A.
1607	,, 17	1	4.5	1	33.4	0.8	2 40	B.
		1	5.5	1	27.4	1.0	2 39	C.
		10	56.0	11	20.8	1.5	6 0	A.
1608	,, 18	10	55.3	11	44.8	1.7	> 6 30	B.
		1	55.3	11	44.8	4.0	—	C.
		12	53.8	11	44.8	1.0	> 6 30	C.
1609	,, 19	19	20.9	19	20.9	—	1 9	A. Ats.
		19	9.4	19	21.9	0.2	1 9	B.
		19	10.1	19	24.9	0.5	1 26	C.
1610	,, 19	0	49.0	1	20.5	0.1	—	A. Duration uncertain.
		0	49.5	1	21.0	0.2	1 15	B.
		0	49.5	1	21.0	0.2	1 12	C.
1611	,, 19	2	7.5	2	22.5	0.2	1 2	B. Ats. con- tinuously on A.
		2	12.0	2	25.0	0.4	0 53	C.
		18	1.0	—	—	—	—	B and C.
1612	,, 20	20	1.5	—	—	—	—	B and C.
		10	8.8	10	38.3	4.0	1 14	A.
		10	5.1	10	34.8	2.5	1 25	B.
1613	,, 21	10	6.1	10	32.9	7.0	3 52	C.
		23	10.3	—	—	—	—	A.
		23	4.5	23	28.8	—	0 25	B and C.
1614	,, 22	12	16.4	12	45.2	0.2	1 11	A.
		12	16.4	12	43.9	0.2	1 23	B.
		12	16.6	12	40.1	0.4	1 27	C.
1615	,, 22	13	50.0	—	—	0 10	A, B, and C. Tremors.	
1616	,, 22	14	12.0	—	—	0 48	,, ,, ,, ,,	
1617	,, 22	15	20.0	—	—	0 40	,, ,, ,, ,,	
1618	,, 22	19	30.0	19	52.2	0.4	2 15	A.
		19	28.8	19	52.5	0.4	2 17	B.
		19	29.7	19	49.3	0.4	2 16	C.
		18	18.7	18	31.1	0.5	1 43	A.
1619	,, 29	18	15.2	18	30.4	1.0	1 49	B.
		18	15.2	18	27.7	0.7	1 55	C.
		16	57.6	17	7.1	1.8	> 1 0	A.
1620	Sept. 4	16	57.4	17	8.0	2.1	> 1 0	B.
		16	56.7	17	5.3	2.5	> 1 0	C.
		16	56.7	17	5.3	2.5	> 1 0	End ob- served by changing paper.

The Register from Shide, Newport, Isle of Wight, England—continued.

No.	Date	Commencement		Max.		Max. Amplitude	Duration	Remarks
		H.	M.	H.	M.			
1621	Sept. 9	7	4.5	7	20.0	1.0	—	A.
1622	,, 21	7	4.0	7	15.5	1.5	1 0	C.
		6	56.1	7	34.8	0.7	3 5	A.
1624	,, 23	6	55.6	7	42.1	0.7	3 6	B.
		6	54.1	7	32.1	1.1	3 7	C.
1625	,, 24	23	54.1	—	—	—	—	Tremor. A, B, and C.
		0	14.3	0	21.1	0.5	0 27	A.
		0	13.3	0	19.9	0.5	0 29	B.
1626	,, 24	0	12.8	0	20.3	0.5	0 28	C.
		0	59.1	1	7.6	0.9	0 38	A.
		0	59.1	1	6.3	0.9	0 32	B.
1627	,, 26	0	59.1	1	6.6	0.9	0 33	C.
		6	49.0	—	—	0.2	0 30	C.
1628	,, 28	6	34.4	6	51.4	0.6	1 56	A.
		6	34.2	6	49.9	0.5	1 55	B.
		6	35.2	6	49.9	1.7	1 55	C.
1629	Oct. 5	?	—	21	49.0	0.1	1 0	A.
1630	,, 6	21	41.0	21	57.0	0.2	1 0	B.
		21	40.5	21	54.5	0.3	1 0	C.
		21	40.0	21	49.0	0.5	0 31	A.
1631	,, 10	21	41.0	21	46.0	0.3	0 42	B.
		21	41.5	21	46.0	0.5	0 42	C.
		15	29.0	15	45.0	0.5	1 30	B.
1632	,, 13	15	29.0	15	45.0	0.6	1 30	C.
		5	20.5	6	6.5	1.4	4 29	A.
		5	20.2	6	5.5	1.5	4 31	B.
1633	,, 14	5	20.5	6	3.7	1.6	4 31	C.
		15	2.5	15	20.7	0.7	2 0	A.
		15	2.5	15	16.7	1.2	2 0	C.
1634	,, 20	3	3.6	3	46.4	1.0	1 57	B.
		3	3.6	3	46.6	0.6	1 57	C.
		6	2.4	6	42.4	0.9	1 30	B.
1635	,, 20	6	2.4	6	42.6	0.2	1 34	C.
		20	20.0	20	52.0	0.3	1 26	A.
		20	16.0	20	32.5	0.3	1 30	B.
1636	,, 23	20	15.5	20	34.0	0.4	1 30	C.
		20	15.5	20	15.5	0.4	1 30	A.
		21	39.5	21	39.5	0.3	—	Also 16h, 48m., slight
1637	,, 24	—	—	21	36.3	0.6	—	B. } Times ap- C. } proximate
		—	—	21	36.3	0.6	—	A.
		—	—	21	39.3	0.6	—	B. } Times ap- C. } proximate.
1638	Nov. 2	5	20.5	5	41.7	0.8	3 50	A. Second max. 6h.32m.
		5	28.5	5	40.5	1.0	4 0	B. Second max. 6h.20m.
1639	,, 6	5	29.5	5	39.7	0.9	4 0	C. Second max. 6h.18m.
		7	22.0	8	7.0	1.5	2 39	Many small shocks until the 6th.
		7	16.5	—	—	—	4 5	A.
1640	,, 6	13	8.5	14	37.0	1.0	?	B. Light out for B and C.
		13	8.5	14	30.0	1.0	2 50	C.
		13	58.5	14	40.0	0.5	1 55	A.

The Register from Shide, Newport, Isle of Wight, England—continued.

No.	Date	Commencement		Max.	Max. Amplitude	Duration	Remarks
		H. M.	H. M.				
1641	Nov. 8	17	50.7	18	7.7	0.2	1 36 B.
		17	53.5	18	7.0	0.2	1 33 C.
		15	23.0	16	3.0	—	1 5 A.
1642	" 9	15	29.2	16	12.0	0.5	2 12 B.
		15	31.0	16	8.0	0.5	2 12 C.
		19	14.0	20	2.0	0.7	2 27 B.
1643	" 10	19	13.5	19	52.0	0.5	2 27 C. Slight on A.
		13	37.0	14	27.0	1.0	2 33 A.
1644	" 11	13	19.0	14	25.0	2.0	3 41 B.
		13	19.0	14	19.0	1.5	3 41 C.
		1	51.0	2	41.0	0.1	1 41 A.
1645	" 15	1	57.0	2	43.0	0.2	2 3 B.
		1	56.0	2	42.0	0.1	2 4 C.
		—	—	6	29.0	—	0 6 A. Also on B and C.
1647	" 18	—	—	6	0.0	0.1	0 8 A.
		5	17.0	5	35.0	0.1	1 0 C.
1648	" 19	5	55.0	6	13.0	0.1	0 47 A.
		5	40.0	6	6.0	0.2	1 22 C.
1649	" 22	8	0.0	8	17.0	0.1	1 24 A.
		7	57.0	8	10.0	0.2	2 0 B.
		7	56.0	8	8.0	0.2	2 19 C.
1650	" 23	13	0.0	13	57.0	0.1	2 30 A.
		12	52.0	13	53.0	0.5	2 30 B.
		12	51.0	13	58.0	0.7	2 31 C.
1651	" 23	16	59.0	17	1.0	0.1	0 15 A.
		16	46.0	17	6.0	0.2	0 56 B.
		16	44.0	17	3.0	0.2	1 0 C.
1652	" 24	12	59.0	13	3.0	0.1	0 32 A.
		12	54.0	13	8.0	0.2	0 42 B.
		12	55.0	13	9.0	0.5	0 39 C.
1653	" 27	—	—	22	59.0	0.1	— A.
		—	—	22	57.0	0.2	— B.
		—	—	22	58.0	0.5	— C.
1654	" 28	22	7.0	22	13.0	0.1	0 48 A.
		21	56.0	22	18.0	0.4	1 47 B.
		21	56.0	22	16.0	0.3	1 47 C.
1656	" 30	22	0.0	22	26.0	0.6	1 23 A.
		22	0.0	22	34.0	0.7	1 30 B.
		22	0.0	22	27.0	0.6	1 34 C.
1657	Dec. 5	21	56.0	—	—	—	0 30 A.
		21	44.0	—	—	—	0 27 B.
		21	44.0	—	—	—	0 31 C.
1658	" 9	11	8.0	—	—	—	0 28 } Very slight.
		11	7.0	—	—	—	0 39 }
1659	" 12	13	5.0	13	43.0	2.5	2 56 A.
		—	—	13	42.0	3.2	3 0 B.
		13	5.0	13	39.0	5.2	3 0 C.
1660	" 12	19	11.0	19	29.0	0.5	1 46 A.
		19	11.0	—	—	—	2 43 B.
		19	11.0	—	—	—	2 33 C.
1661	" 13	8	4.0	8	9.0	1.2	1 0 A.
		8	13.0	—	—	—	0 50 B.
		8	12.0	—	—	—	0 50 C.
1662	" 13	16	10.0	16	11.5	0.2	0 10 B.
		16	10.0	16	11.0	0.3	0 10 C.

The Register from Shide, Newport, Isle of Wight, England—continued.

No.	Date	Commencement		Max.	Max. Amplitude	Duration	Remarks
		H. M.	H. M.				
1663	Dec. 18	15	45.0	16	15.0	1.2	— A.
		15	45.0	16	12.0	1.5	— B.
		15	45.0	16	12.0	2.0	— C.
1664	" 22	3	34.5	3	42.0	0.5	0 42 A.
		3	20.0	3	40.0	1.0	1 20 B.
1665	" 23	8	39.0	8	47.0	0.1	0 21 A.
		—	—	8	47.5	0.1	— B.
		—	—	8	47.0	0.25	— C.
1666	" 23	21	31.0	21	36.5	0.1	0 30 A.
		21	31.0	21	34.5	0.2	0 20 B.
		21	29.0	21	34.0	0.25	0 30 C.
1667	" 25	16	58.5	17	9.0	0.1	1 0 A.
		—	—	17	8.0	0.1	— B.
		—	—	17	7.0	0.1	— C.
1668	" 25	21	28.5	21	36.0	0.75	0 52 A.
		21	24.0	21	36.0	0.6	1 0 B.
		21	24.0	21	34.0	0.75	1 15 C.
1669	" 26	7	9.5	7	10.5	0.1	0 16 A.
		7	8.5	7	10.0	0.1	0 15 B.
		7	8.5	7	10.5	0.1	0 15 C.
1670	" 28	—	—	4	33.5	>15	4 0 A. P ₂ at 4h. 24m.
		4	20.5	4	31.0	>16	4 0 B. P ₂ at 4h. 24.3m.
		4	14.0	4	31.0	>30	4 0 C. P ₂ at 4h. 24.3m.
1671	" 29	18	38.5	18	40.5	0.1	0 8 A.
		18	38.5	18	40.5	0.1	0 12 B.
		18	38.0	18	40.5	0.1	0 11 C.
1672	" 29	23	15.3	23	23.7	0.2	0 35 A.
		23	15.0	23	22.0	0.6	0 40 B.
		23	12.0	23	24.0	0.2	0 48 C.
1673	" 30	?	?	22	22.0	0.1	? A.
		?	?	22	47.0	—	—
		?	?	22	19.0	0.1	? B.
1674	" 30	?	?	22	54.0	—	—
		?	?	22	18.0	0.1	? C.

Register from The National Physical Laboratory, Kew Observatory. Director, R. T. GLAZEBROOK, D.Sc., F.R.S.; Superintendent, C. CHREE, LL.D., F.R.S.; Observer, E. G. CONSTABLE.

No.	Date	Commence-ment	Max.	Max. Amplitude	Duration	Remarks
1908						
		H. M.	H. M.	MM.	H. M.	
845	July 1	8 5.3	—	0.5	0 7	—
846	" 10	9 24.5	—	0.6	0 8	—
847	" 13	21 48.2	—	0.2	0 13	Ill-defined.
848	" 26	17 8.3	—	0.2	0 14	—
849	Aug. 4	2 24.3	—	0.4	0 7	—
850	" 9	19 11.4	—	0.2	0 6	Ill-defined.
851	" 17	11 5.3	11 43.8	2.5	2 35	—
852	" 18	19 20.8	—	0.2	0 5	—
853	" 20	10 11.3	10 34.4	2.0	1 5	—
854	" 29	18 25.7	—	0.3	0 8	—
855	Sept. 4	17 1.0	17 6.2	1.0	0 19	—
856	" 21	7 1.7	7 22.4	0.6	1 19	—
857	" 24	0 18.3	—	0.2	0 5	Ill-defined.
858	" 24	1 4.2	—	0.3	0 4	—
859	" 28	6 43.7	6 49.1	0.8	0 23	—
860	Oct. 13	5 32.0	6 1.0	1.4	1 10	Times approx-imate.
861	" 14	15 11.7	15 20.3	0.8	0 16	—
862	" 17	18 21.8	—	0.6	0 11	Seismic charac-ter somewhat doubtful.
863	" 20	3 38.3	3 40.2	0.5	0 10	—
864	" 20	6 38.7	—	0.2	0 13	Ill-defined.
865	Nov. 2	5 45.8	6 18.0	0.7	1 21	—
866	" 6	7 31.6	7 59.0	1.9	1 20	—
867	" 11	13 41.0	14 25.0	0.6	1 18	—
878	" 23	13 22.8	—	0.2	0 45	Ill-defined.
869	" 30	22 20.7	—	0.2	0 15	—
870	Dec. 12	13 15.0	13 44.9	2.2	1 32	—
871	" 18	15 58.0	16 18.3	0.6	1 7	—
872	" 23	9 30.0	—	0.2	0 10	Ill-defined.
873	" 28	4 23.6	4 31.1 4 32.7	>17.0	2 10	Sicilian E.Q.

Scale—July 1. 1mm. displacement of boom = 0".56 of arc.
 October 28. " " " " = 0".56 " "
 December 19. " " " " = 0".55 " "

Register from Liverpool Observatory, Bidston. Director, W. E. PLUMMER.

No.	Date	Commence-ment	L. W. Commence	Max.	End	Max. Amplitude	Duration	Remarks
1908								
		H. M.	H. M.	H. M.	H. M.	MM.	H. M.	
1114	June 30	—	—	3 0.0	—	—	—	Very weak disturb-ance.
1115	July 1	—	8 12.5	8 19.7	8 39.0	—	0.27	—
1116	" 4	—	14 48.0	—	14 59.0	—	0.11	Time doubtful.
1117	" 6	—	8 51.8	8 59.3	9 15.0	—	0.23	—
1118	" 7	—	4 30.6	4 36.3	4 52.2	—	0.21	—
1119	" 8	—	12 54.0	13 4.9	13 43.1	—	0.6	—
1120	" 10	—	2 17.0	2 29.2	2 49.3	—	0.32	Feeble.
1121	" 13	—	21 34.9	21 54.2	22 44.0	—	0.1	1 9
1122	" 16	—	17 10.7	17 14.6	17 28.7	—	0.3	—
1123	" 26	—	17 5.7	17 15.0	17 46.4	—	0.4	0.41
1124	" 26	—	18 22.3	18 27.0	18 37.2	—	0.4	0.15
1125	Aug. 2	—	13 2.5	13 6.0	13 17.1	—	0.1	0.15
1126	" 4	—	2 14.2	2 21.8	2 37.0	—	0.3	0.23
1127	" 4	—	19 7.0	19 11.1	19 22.8	—	0.2	0.16
1128	" 12	—	17 0.7	17 26.0	18 14.3	—	0.5	1.14
1129	" 12	—	19 11.2	19 20.4	20 19.1	—	0.4	1 8
1130	" 14	—	1 16.0	1 27.0	1 50.0	—	0.34	Record faint. Time uncertain.
1131	" 16	—	10 16.8	10 31.0	11 1.0	—	0.44	Line uneven. Per-haps A.T.
1132	" 17	11 7.2	11 17.9	11 42.3	13 38.0	1.4	2.31	—
1133	" 18	—	19 32.2	19 51.3	20 6.2	0.2	0.34	Feeble.
1134	" 19	—	1 15.2	1 22.8	1 34.4	—	0.19	Small.
1135	" 20	10 14.0	10 22.9	10 39.5	11 28.7	2.8	1.15	—
1136	" 22	—	12 38.7	12 44.7	13 1.3	0.4	0.23	—
1137	" 22	—	19 47.0	19 52.4	20 0.6	0.4	0.13	—
1138	" 29	—	18 21.3	18 29.0	18 40.9	0.5	0.19	—
1139	Sept. 3	—	12 46.1	12 49.2	13 4.8	0.2	0.19	—
1140	" 4	—	17 0.0	17 7.2	17 24.5	1.4	0.25	—
1141	" 9	—	7 12.4	7 20.8	7 31.0	0.3	0.19	—
1142	" 13	—	4 54.0	—	5 15.0	—	0.19	Small and doubtful.
1143	" 20	—	6 7.7	6 11.2	6 19.0	—	0.12	Small.
1144	" 21	—	7 10.0	7 27.2	8 10.7	1.4	1 1	—
1145	" 21	—	8 55.8	9 2.7	9 17.0	0.3	0.21	—
1146	" 22	—	4 7.7	4 12.8	4 21.0	0.1	0.13	—
1147	" 23	—	8 0.2	8 7.7	8 26.8	0.3	0.29	—
1148	" 24	—	0 16.3	0 20.4	0 28.0	0.2	0.12	—
1149	" 24	—	1 0.6	1 5.7	1 21.2	0.3	0.21	—
1150	" 28	—	6 52.2	7 0.7	7 29.0	0.3	0.28	—
1151	" 28	—	6 41.6	6 53.7	7 14.4	0.6	0.33	—
1152	Oct. 2	—	1 15.0	—	1 28.0	—	0.13	Very small.
1153	" 3	—	14 21.2	14 25.2	14 40.7	0.1	0.20	—
1154	" 4	—	11 46.2	11 54.9	12 16.1	0.3	0.30	—
1155	" 5	—	21 56.2	21 59.7	22 14.8	—	0.19	Very small.
1156	" 6	—	21 44.3	21 49.6	22 8.0	0.4	0.24	—
1157	" 7	—	1 51.0	1 59.8	2 40.9	0.3	0.50	Much disturbance.
1158	" 10	—	15 39.4	15 47.0	15 59.3	0.2	0.20	—
1159	" 13	—	5 19.4	5 59.7	7 16.3	1.4	1.57	—
1160	" 14	—	15 6.5	15 15.0	16 17.7	0.6	1.11	—
1161	" 20	—	3 27.8	3 40.3	4 0.0	0.6	0.22	—
1162	" 20	—	6 34.4	6 37.8	6 53.0	0.5	0.19	—
1163	" 23	—	20 29.1	20 36.2	20 52.5	0.4	0.23	—
1164	" 24	—	21 32.8	21 40.0	21 57.4	0.4	0.25	—
1165	" 29	—	3 52.0	4 2.7	4 18.0	0.1	0.26	A second earth-quake? Max. 5h.45m.
1166	Nov. 2	—	5 35.4	6 16.0	7 8.2	0.7	1.33	—
1167	" 2	—	7 39.3	7 46.1	8 0.0	0.4	0.22	—
1168	" 6	7 28.3	7 32.5	8 0.0	8 54.2	1.6	1.26	—
1169	" 6	—	9 41.2	9 45.3	9 52.7	—	0.11	Minute.
1170	" 6	—	14 5.9	14 29.1	15 28.0	1.0	1.22	—
1171	" 9	—	23 41.2	23 46.7	23 59.0	0.1	0.18	—
1172	" 9	—	15 59.0	16 4.2	16 38.5	0.4	0.30	—
	" 10	—	—	20 0.0	—	—	—	Suspicious; needs confirmation.
1173	" 11	—	13 43.0	13 49.7	14 3.0	0.2	0.21	May be only one
1174	" 11	—	14 8.9	14 21.3	15 24.0	1.1	1.15	quake, but appar-ently two.
1175	" 17	—	7 26.2	7 34.5	8 2.0	0.2	0.36	—
1176	" 23	—	13 44.2	13 48.0	14 5.1	0.2	0.21	—

Register from Liverpool Observatory, Bidston—continued.

No.	Date	Com-mence-ment		L.W. Commence	Max.	End	Max. Ampli-tude	Duration	Remarks
		H. M.	H. M.						
1177	Nov. 23	—	—	—	3 22.0	—	—	—	Small disturbance.
1178	" 27	—	—	10 45.3	10 52.4	11 2.0	0.1	0 17	
1179	" 28	—	—	22 6.6	22 14.0	22 26.3	0.3	0 26	
1180	" 30	—	—	22 7.4	22 14.0	22 49.3	0.3	0 42	—
1181	Dec. 10	—	—	—	—	7 30.0	—	—	—
1182	" 12	—	—	13 14.2	13 40.3	14 39.0	2.6	1 21	—
1183	" 12	—	—	14 43.0	14 46.1	15 8.2	0.2	0 25	—
1184	" 12	19 21.8	—	19 42.2	19 56.8	20 30.4	0.4	1 9	—
1185	" 18	—	—	—	8 26.0	—	—	doubtful	—
1186	" 16	—	—	16 14.7	16 29.3	16 27.8	0.1	0 13	—
1187	" 18	—	—	15 48.4	16 20.0	17 37.3	1.9	1 49	—
1188	" 22	—	—	2 31.8	2 36.7	2 47.4	0.2	0 16	—
1189	" 25	—	—	21 32.3	21 34.6	21 44.2	0.2	0 12	—
1190	" 28	—	—	4 22.8	4 30.4	6 3.7	15.0	1 41	—
1191	" 29	—	—	18 34.7	18 42.0	18 57.0	0.2	0 22	—
" 30	—	—	—	22 56.0	23 2.5	23 42.0	0.1	0 45	—

Register from Royal Observatory, Edinburgh—continued.

Date	Com-mence-ment	L.W. Commence		Max.	End	Max. Ampli-tude	Duration	Remarks	
		H. M.	H. M.						
Nov. 22	12h. to	H. M.	H. M.	H. M.	H. M.	MM.	H. M.	A.T's.	
" 27	11h. to	—	—	—	—	—	—	A.T's.	
" 30	22 5.0	—	—	22 23.5	22 52.5	0.25	0 47.5	—	
Dec. 12	13 15.0	—	—	13 36.5	13 58.0	14 44.5	2.8	1 29.5	—
" 12	19 57.0	—	—	—	—	20 21.0	—	0 24	Slight tremors, perhaps A.T's.
" 18	15 50.5	—	—	16 15.5	16 21.0	17 7.5	1.2	1 17	—
" 22	3 32.0	—	—	—	—	3 44.0	0 12	—	Small A.T's?
" 25	21 33.0	—	—	—	—	21 37.0	—	0 4	Slight thickening.
" 28	4 16.0	—	—	4 30.5	4 37.5	6 14.5	11.5	1 58.5	—
" 28	19h. to	—	—	Dec. 30, 6h.	—	—	—	—	A.T's.

1908, June 28. 1° of footscrew = 3.6mm.
 Oct. 25. " = 3.5mm.
 Dec. 24. " = 3.7mm.
 Dec. 29. " = 3.45mm.

Mean = 3.56mm.

0°-537 = tilt of pillar corresponding to 1mm. at end of boom.

Register from Royal Observatory, Edinburgh.
 Director, F. W. DYSON, M.A., F.R.S.

Date	Com-mence-ment	L.W. Commence		Max.	End	Max. Ampli-tude	Duration	Remarks
		H. M.	H. M.					
1908								
July 1	8 16.5	—	—	8 26.5	8 29.0	0.2	0 12.5	—
" 8	13 2.0	—	—	13 5.0	13 21.5	0.4	0 19.5	—
" 13	—	—	—	21 21.0	—	—	—	Very small notch.
" 13	21 41.0	—	—	—	22 17.0	—	0 36	Small A.T's.
Aug. 4	2 22.0	—	—	—	2 26.0	—	0 4	A.T.?
" 9	19 13.5	—	—	—	19 16.5	—	—	Slight thickening.
" 14	1 5.0	—	—	1 32.0	1 53.5	0.4	0 48.5	—
" 17	11 7.0	11 35.5	12 2.0	13 33.0	1.6	2 26	—	—
" 20	10 12.5	10 29.8	10 32.5	11 22.5	2.4	1 10	—	—
" 22	19 51.2	—	—	20 0.0	0.2	0 8.8	—	—
" 29	18 28.0	—	—	18 30.0	0.3	0 22	—	—
Sept. 4	17 3.0	17 6.5	17 9.0	17 20.0	0.9	0 17	—	—
" 10	7 18.5	—	—	7 26.0	—	0 7.5	—	Perhaps A.T's.
" 21	7 3.0	7 43.0	7 51.5	9 13.5	0.7	2 10.5	—	—
" 23	7 57.0	—	—	8 6.0	0.2	0 9	—	—
" 23	23 53.5	—	—	23 56.0	—	0 2.5	—	Very slight tremors.
" 24	0 16.5	—	—	0 20.5	0.3	0 4	—	—
" 24	1 2.0	—	—	1 3.6	1 7.5	0.6	0 5.5	—
" 28	6 43.0	—	—	6 52.0	7 14.5	0.7	0 31.5	—
Oct. 13	5 19.0	5 29.0	6 0.5	6 36.0	1.1	1 17	—	—
" 14	15 7.5	—	—	15 13.0	15 54.0	0.5	0 46.5	—
" 20	3 35.5	—	—	3 47.0	3 57.5	0.5	0 22	—
" 20	6 33.0	—	—	6 43.5	6 49.0	0.3	0 16	—
" 23	20 30.0	—	—	20 35.5	20 58.0	0.3	0 28	—
" 24	21 29.5	—	—	21 38.5	21 59.0	0.6	0 29.5	—
Nov. 2	5 39.5	—	—	6 24.0	7 5.0	0.8	1 29.5	—
" 6	7 31.0	7 55.5	7 57.0	9 4.5	1.5	1 33.5	—	—
" 6	14 20.0	—	—	14 30.0	15 5.5	0.25	0 45.5	—
" 9	16 4.5	—	—	16 13.0	16 16.0	0.2	0 11.5	—
" 11	13 44.0	—	—	14 18.5	14 52.5	0.8	1 8.5	—

Register from the Coats Observatory, Paisley.
 Directors, THE OBSERVATORY COMMITTEE.

No.	Date	Com-mence-ment		L.W. Commence	Max.	End	Max. Ampli-tude	Duration	Remarks
		H. M.	H. M.						
1908									
435	July 8	—	—	—	13 2.5	—	—	—	Thickening.
436	" 10	—	—	—	2 58.0	—	0.5	—	"
437	" 10	—	—	—	6 58.0	—	—	—	"
438	" 12	—	—	—	2 59.0	—	—	—	Doubtful.
438	" 26	—	—	—	13 39.0	—	—	—	Thickening.
440	" 26	—	—	—	17 13.0	—	—	—	"
441	" 26	—	—	—	18 32.0	—	—	—	"
442	Aug. 4	—	—	—	2 23.0	—	—	—	"
443	" 13	—	—	—	23 53.5	—	1.5	—	Tremors.
444	" 17	11 5.4	—	—	11 44.0	13 35.0	2.4	2 30	—
445	" 20	10 12.5	—	—	10 32.6	11 49.0	2.7	1 28	—
446	" 21	—	—	—	22 56.0	—	—	—	Thickening.
447	" 22	—	—	—	10 47.0	—	—	—	"
448	Sept. 4	17 2.0	—	—	17 7.8	17 25.0	0.8	0 23	"
449	" 7	—	—	—	14 55.0	—	—	—	Doubtful.
450	" 21	7 2.0	—	—	7 45.0	8 50.0	0.6	1 48	—
451	" 23	—	—	—	8 4.5	—	—	—	Thickening.
452	" 24	—	—	—	0 18.2	—	—	—	"
453	" 24	—	—	—	1 4.0	—	0.6	—	"
454	" 26	7 0.5	—	—	7 21.0	—	—	0 20	Thickening.
455	" 28	6 43.0	—	—	6 51.0	7 13.0	0.7	0 30	—
456	" 28	—	—	—	18 50.0	—	—	—	Thickening.
457	Oct. 6	—	—	—	20 48.0	—	—	—	"

Register from the Coats Observatory, Paisley—continued.

No.	Date	Commencement		Max.	End	Max. Amplitude	Duration	Remarks.
		H. M.	L. W. Commence					
458	Oct. 7	—	—	0 31.0	—	—	—	Possible tremors.
	" 7	—	—	2 1.0	—	—	—	" "
	" 7	—	—	2 16.0	4 5.0	—	—	" "
	" 7	—	—	8 25.0	10 0.0	—	—	" "
	" 7	—	—	12 20.0	13 40.0	—	—	" "
	" 8	—	—	11 5.0	12 10.0	—	—	" "
459	" 13	5 18.5	—	6 1.0	8 25.0	0.8	3 7	" —
				6 5.5	—	—	—	
460	" 14	14 40(?)	—	15 18.5	16 3.0	0.7	1 23	—
461	" 18	—	—	0 27.0	—	—	—	Thickening.
	" 18	—	—	17 57.0	—	—	—	"
462	" 20	—	—	3 49.0	6 50.0	—	—	"
463	" 23	20 26.5	—	20 35.0	20 58.0	0.4	0 32	—
464	" 24	—	—	21 38.0	—	1.0	—	Tremors.
465	" 28	—	—	13 39.0	—	—	—	Thickening.
466	" 30	11 52.5	—	—	14 40.0	—	—	Thickenings at intervals.
467	Nov. 2	5 40.0	—	6 25.0	7 46.0	1.0	2 6	—
468	" 3	13 30.0	—	—	19 0.0	—	—	Thickenings at intervals.
469	" 6	7 30.5	—	8 8.5	8 54.0	1.0	1 24	—
470	" 6	14 28.5	—	14 38.0	15 5.0	0.3	0 37	—
471	" 6	—	—	23 47.0	—	—	—	Thickening.
472	" 9	16 0.0	—	16 12.0	16 28.0	—	0 28	—
473	" 11	13 54.0	—	14 24.0	14 58.0	1.1	1 1	—
474	" 18	6 25(?)	—	7 42.0	1 30.0	—	7 5	? Tremors.
				11 3.0	—	—	—	—
475	" 22	—	—	16 (?)	—	—	—	Obscured by tremors.
476	" 24	—	—	6 45.0	—	—	—	Obscured by tremors.
477	" 24	—	—	12 (?)	—	—	—	Obscured by tremors.
478	Dec. 12	13 7.0	—	13 46.0	14 40.0	2.7	1 33	—
479	" 18	15 40.0	—	16 19.0	?	1.2	?	Tremors.
				16 21.0	—	—	—	—
480	" 29	—	—	23 22.0	—	—	—	Thickening.

July 12, 18h., to July 15, 21h., film spoiled in development.
December 9 to December 29, signs of boom occasionally resting on clock-box.

Register from Frensham Hall, Haslemere, Surrey, England.
Observer, SAML. KEVAN.

No.	Date	Commencement		Max.	End	Max. Amplitude	Duration	Remarks
		H. M.	L. W. Commence					
1908								
235	July 3	1 51.0	—	1 51.50	1 56.0	0.3	0 5	—
237	" 13	21 40.32	—	21 51.0	22 0.0	0.6	0 19	—
240	" 23	18 49.24	—	18 50.40	18 58.20	1.0	0 9	—
242	Aug. 4	2 20.30	—	2 22.0	2 28.0	0.6	0 7	Algeria (Constantine).
243	" 6	9 34.48	—	9 36.12	9 42.20	0.7	0 7	—
	" 9	19 10.0	—	19 11.15	19 17.0	0.5	0 7	—
244	" 14	1 5.24	—	1 33.30	2 12.0	0.6	1 6	—
245	" 17	11 4.36	—	11 41.38	13 42.0	4.0	2 37	—
246	" 20	10 12.33	—	10 32.15	12 34.35	4.5	2 21	—
248	" 29	18 25.12	—	18 30.25	18 49.30	1.0	0 24	—
250	Sept. 4	10 3.12	—	10 7.23	10 28.0	2.2	0 24	—
251	" 11	16 15.0	—	16 17.6	16 20.38	0.6	0 5	—
252	" 13	18 18.5	—	18 30.26	18 54.0	0.9	0 35	—
253	" 19	11 41.12	—	11 45.20	12 5.10	0.7	0 23	—
255	" 28	6 39.6	—	6 48.0	7 26.34	1.0	0 47	—
259	Oct. 13	5 30.10	—	6 3.24	8 20.25	2.8	3 0	—
	" 14	15 10.36	—	15 14.4	16 33.0	1.0	1 22	—
				15 22.33	—	—	—	—
260	" 20	3 38.15	—	3 42.30	4 13.0	0.6	0 34	—
	" 20	6 34.0	—	6 40.0	6 49.0	0.5	0 15	—
264	Nov. 6	7 29.0	—	7 59.24	9 30.0	3.0	2 1	—
266	" 11	13 44.0	—	14 21.28	15 3.12	1.4	1 19	Southern India.
268	" 19	16 42.0	—	16 44.50	16 50.32	0.8	0 8	—
270	" 30	22 12.0	—	22 23.30	23 15.12	0.7	1 3	—
271	Dec. 5	11 34.50	—	11 39.42	11 47.55	1.0	0 13	—
273	" 12	13 17.0	—	13 40.12	15 17.0	5.5	2 0	—
				13 47.0	—	—	—	—
	" 12	19 33.4	—	20 4.15	20 29.0	0.7	0 57	—
274	" 14	11 15.0	—	11 40.34	12 6.12	1.4	0 51	—
275	" 18	15 56.0	—	16 13.6	17 6.10	4.0	1 20	—
	" 21	10 19.21	—	10 20.30	10 28.36	1.3	0 9	Many A.T's.
276	" 23	17 33.40	—	17 34.50	17 41.0	1.4	0 7	—
277	" 28	4 25.36	—	4 33.0	5 40.20	11.0	0 38	Southern Italy.

Boom period = 18 sec.

Register from the Observatorio de Marina de San Fernando, Spain.
Director, Commodore T. DE AZCÁRATE.

No.	Date	Commencement	L.W. Commence	Max.	End	Duration	Max. Amplitude	Remarks
1908								
896	July 8	H. M. 15 11'0	H. M. 13 11'0	H. M. 13 14'5	H. M. 13 41'0	H. M. 0 30'0	MM. 0'45	Small movements.
897	" 12	2 1'8	—	—	—	2 2'5	—	Tremors.
899	" 13	21 42'8	21 42'8	21 54'2	22 0'3	0 44'8	0'90	—
902	" 26	18 21'2	—	—	—	0 25'0	—	Tremors.
903	Aug. 4	2 17'1	2 17'1	2 19'8	2 24'3	0 7'2	0'25	Very small movements.
905	" 17	11 4'8	11 19'8	{ 11 21'0 11 32'6	11 41'0	2 30'3	{ 1'00 1'15	—
907	" 19	1 53'1	—	—	—	5 34'6	—	Tremors.
908	" 20	10 23'8	10 39'0	10 40'3	10 42'8	0 51'3	0'90	—
911	" 29	18 23'6	18 26'1	18 28'9	18 28'6	0 11'0	1'00	—
915	Sept. 4	17 1'1	17 2'8	17 4'1	17 6'3	0 15'2	2'50	—
924	" 23	23 1'9	—	—	—	8 2'2	—	Tremors.
932	Nov. 2	7 14'9	—	—	—	0 49'0	—	—
933	" 6	7 34'4	8 1'7	8 5'9	8 21'4	1 2'7	1'70	—
934	" 6	14 31'8	—	—	—	0 32'1	0'35	—
935	" 6	23 34'3	—	—	—	7 24'8	—	Tremors.
938	" 11	14 25'9	14 25'9	14 39'4	14 57'9	0 32'0	0'60	—
941	" 19	5 5'9	—	—	—	4 5'5	—	Tremors.
950	Dec. 12	13 17'5	13 44'5	13 50'0	13 58'7	1 46'4	2'30	—
952	" 18	15 36'9	16 9'1	16 11'4	16 13'6	1 3'8	2'40	—
957	" 25	14 17'7	14 17'7	14 18'5	14 19'8	0 2'1	0'70	—
958	" 28	4 24'9	4 28'4	{ 4 28'4 4 29'4 4 32'9	4 58'4	1 42'2	{ 10'00 8'00 8'00	Sicily, Calabria. The tremors began at 20h.22'4m. of the 27th, and followed after the earthquake till 9h.47'9m.
959	" 29	23 20'7	23 20'7	23 22'7	23 24'9	0 4'2	0'80	—

1mm. = 0"40.

Period = 18s.

Register from the University, Valletta, Malta.
Officer in charge, C. LEACH.

No.	Date	Commencement	L.W. Commence	Max.	L.W. End	End	Duration	Amplitude	Remarks
1908									
131	July 3	H. M. 12 43'0	H. M. —	H. M. 12 46'5	H. M. —	H. M. 12 55'0	H. M. 0 13'0	MM. 1'0	—
132	" 7	4 39'0	—	—	—	—	—	—	Tremors lasting till the 8th.
133	" 13	21 27'5	—	21 54'5	—	22 18'5	0 39'5	0'75	—
135	" 26	16 20'0	—	—	—	—	—	—	—
137	Aug. 4	2 15'0	—	2 22'5	—	2 33'5	0 18'5	0'5	Trace only.
138	" 9	?	—	19 3'0	—	—	—	—	—
139	" 14	1 18'0	—	—	—	—	—	0'5	—
140	" 20	10 1'5	—	10 31'0	—	11 22'5	1 21'0	1'0	Distinct.
141	" 22	12 36'5	—	13 10'5	—	—	—	0'5	—
142	" 29	18 30'0	—	18 42'0	—	19 20'5	0 48'0	0'5	—
143	Sept. 4	17 1'7	—	17 15'5	—	17 51'5	0 49'7	1'5	—

Register from the University, Valletta, Malta—continued.

No.	Date	Commencement	L.W. Commence	Max.	L.W. End	End	Duration	Amplitude	Remarks
144	Sept. 12	H. M. 21 40'2	H. M. —	H. M. 22 17'0	H. M. —	H. M. ?	H. M. —	MM. 0'3	End in tremors.
145	" 21	6 51'0	—	7 23'2	—	?	—	0'5	—
146	" 24	1 8'5	—	1 16'7	—	1 26'0	0 12'5	0'5	" "
147	" 26	6 44'0	—	?	—	7 17'0	0 33'0	0'2	—
148	" 27	1 49'0	—	2 9'0	—	?	—	—	—
149	" 28	6 32'7	—	6 47'0	—	7 17'5	0 41'0	1'5	Distinct.
150	Oct. 3	1 54'0	—	2 6'0	—	3 15'0	1 21'0	0'3	—
151	" 14	15 11'0	—	15 23'0	—	15 57'0	0 46'0	1'0	Distinct.
152	" 17	10 17'2	—	11 12'0	—	12 58'0	2 49'7	0'7	—
153	" 20	4 11'2	—	?	—	4 20'0	0 8'7	—	Trace.
154	" 23	1 10'0	—	?	—	1 30'0	0 20'0	—	—
155	" 24	21 41'5	—	?	—	23 8'5	1 27'0	0'5	" "
156	Nov. 2	5 38'0	—	7 8'0	—	8 23'2	2 44'5	1'0	—
157	" 6	7 30'5	—	9 8'0	—	9 45'0	2 14'5	2'5	—
158	" 11	13 17'2	—	?	—	?	—	0'5	End masked by tremors.
159	" 19	5 52'0	—	6 13'2	—	?	—	0'3	End lost in changing paper.
160	" 28	5 52'5	—	5 57'5	—	6 9'5	0 16'7	2'0	—
161	" 28	22 8'5	—	—	—	22 52'5	0 30'5	0'5	—
162	" 30	22 15'0	—	22 40'0	—	23 14'0	0 49'5	0'5	—
163	Dec. 4	22 50'0	—	22 56'0	—	?	—	0'3	End cannot be traced.
164	" 10	?	—	8 4'0	—	?	—	0'3	—
165	" 12	13 4'7	13 40'0	13 42'0	14 53'0	?	—	2'0	Distinct.
166	" 12	19 21'5	—	19 27'7	—	?	—	0'3	—
167	" 18	15 47'0	15 55'5	16 0'0	16 4'7	17 7'5	?	0'0	—
168	" 22	15 51'5	—	—	—	13 46'5	—	—	Continuous tremors.
171	" 28	4 21'35	?	4 22'15	—	—	—	over 20'0	Messina earthquake. Boom displaced and all trace of earthquake lost after 5.14 a.m. Displacement of boom about 16 mm. Corrected at 8.14.
				4 22'30	—	—	—	—	—
				4 23'30	—	?	—	—	—
				4 24'0	—	—	—	—	—
				4 31'0	—	—	—	—	—
				4 35'15	—	—	—	17'0	—
172	" 28	?	—	8 48'2	—	?	—	0'3	—
173	" 28	—	—	20 45'0	—	—	—	0'3	—
175	" 29	18 30'0	—	18 32'0	—	?	—	0'5	Distinct.
176	" 30	17 49'0	—	—	—	14 21' of the 31st	—	—	Continuous tremors.

Period = 20secs. 1° = 6mm. 1mm. = 0"32.

Register from Helwan Observatory, Cairo, Egypt.
Superintendent, B. F. E. KEELING.

Instrument A records E.W. motion, while B records N.S. motion.

No.	Date	Com- mence- ment	L.W. Commence	Max.	End	Max. Ampli- tude	Dura- tion	Remarks
1908								
541	June 30	H. M. 21 12.0	H. N. —	H. N. —	H. M. 21 22.0	MM. 0.15	H. M. 0 10	B.
542	July 7	4 47.0	—	—	23 12.0	0.1	—	A.
543	" 10	6 58.0	—	—	7 3.0	0.1	—	A.
544	" 10	10 19.0	—	—	10 26.0	0.2	—	A.
" 10	10 18.5	—	—	—	10 21.0	0.1	—	B.
545	" 11	18 43.0	18 55.0	18 56.2	19 3.0	0.2	—	B.
546	" 13	9 59.0	10 13.0	10 15.0	10 26.0	0.2	—	A.
547	" 13	21 26.5	21 54.0	21 58.5	22 36.0	0.2	—	A.
548	" 16	6 32.0	—	—	6 38.0	0.1	—	A.
549	" 16	8 0.0	—	—	8 5.0	0.1	—	A.
550	" 16	10 34.4	—	—	10 38.8	0.2	—	B.
" 16	10 35.0	—	—	—	10 43.0	0.15	—	A.
551	" 19	10 36.0	—	—	10 46.0	0.40	—	A.
552	" 25	11 24.5	—	—	11 36.0	0.4	—	B.
553	" 26	3 46.0	—	—	3 56.0	0.1	—	B.
554	" 26	6 58.8	—	—	7 1.5	0.1	—	B.
555	" 26	16 25.0	16 46.0	16 48.5	17 21.0	0.5	—	B.
" 26	16 37.0	16 56.0	16 56.5	17 31.0	0.5	—	—	A.
556	" 26	17 32.0	17 58.5	18 6.0	19 5.0	0.5	—	B. Place where the paper joins divides the max- imum disturb- ance.
557	" 26	17 41.0	18 45.0	18 7.0	19 8.0	0.5	—	A.
558	Aug. 4	2 26.0	—	—	2 38.0	0.1	0 12	A.
559	" 10	10 29.8	—	—	10 34.5	0.1	—	A.
" 12	16 5.0	17 30.0	17 34.0	18 44.0	0.3	—	—	A. Continuous small tremor.
560	" 12	19 5.0	19 50.0	19 55.0	20 22.0	0.4	—	A.
561	" 13	6 51.0	—	—	7 5.0	0.1	—	A.
562	" 17	11 2.8	11 30.1	14 41.0	11 37.8	3.6	—	A.
" 17	10 56.5	11 50.0	11 54.1	13 45.6	1.1	—	—	B.
563	" 18	19 8.0	—	—	20 22.0	0.2	—	A.
564	" 19	1 30.0	—	—	2 55.0	0.1	—	A.
" 19	1 30.0	—	—	—	2 42.0	0.1	—	B.
565	" 19	18 7.0	—	—	18 52.0	0.2	—	A.
566	" 20	10 6.7	10 24.8	10 28.0	12 0.0	2.0	—	A.
" 20	10 9.6	10 24.2	10 27.5	11 53.3	1.5	—	—	B.
567	" 22	9 1.0	—	—	9 9.0	0.2	—	A.
568	" 22	12 27.0	—	—	12 49.0	0.2	—	A.
569	" 22	19 30.0	—	—	21 40.0	0.15	—	A. Continuous small tremor.
570	" 25	21 20.8	—	—	21 57.0	0.2	—	A.
571	" 29	18 30.0	—	—	19 55.0	0.4	—	A.
572	Sept. 1	20 2.0	—	—	20 13.0	0.1	—	A only.
573	" 2	16 34.0	—	—	16 42.0	0.1	—	A only.
574	" 3	4 45.0	—	—	4 50.0	0.1	—	B.
" 3	4 46.5	—	—	—	—	—	—	Very slight.
575	" 4	17 9.0	—	17 30.0	18 46.0	0.4	—	A.
" 4	17 9.0	17 23.5	17 27.7	17 57.0	0.5	—	—	B.
576	" 6	6 16.0	—	—	6 26.0	0.2	—	A.
" 6	6 21.5	—	—	6 23.0	—	—	—	Very slight.
577	" 8	4 58.5	—	—	5 3.0	0.1	—	A.
" 8	4 57.5	—	—	5 0.0	—	—	—	Very slight.
578	" 9	6 55.0	—	—	8 18.0	0.2	—	B.
" 9	6 47.0	—	—	6 50.0	0.1	—	—	B.
579	" 9	6 54.5	—	—	7 12.0	—	—	Very slight.
580	" 17	0 39.0	—	—	1 7.0	0.2	—	A.
" 17	0 40.0	—	—	1 5.0	—	—	—	Very slight.
581	" 21	7 0.0	—	9 3.0	10 1.0	0.3	—	A.
" 21	6 57.5	—	7 13.0	9 31.0	0.3	—	—	B.
582	" 22	2 35.0	—	—	2 46.0	0.1	—	A only.
583	" 23	7 23.0	7 42.0	7 47.0	9 23.0	0.6	—	A.
" 23	7 28.0	—	7 44.0	—	—	0.3	—	B.
584	" 26	6 2.0	6 50.0	7 47.0	—	0.3	—	A only.
585	" 26	10 48.0	—	—	10 53.5	0.1	—	A.
" 26	10 43.5	—	—	10 44.5	—	—	—	Very slight.

Register from Helwan Observatory, Cairo, Egypt—continued.

No.	Date	Com- mence- ment	L.W. Commence	Max.	End	Max. Ampli- tude	Duration	Remarks
586	Sept. 28	H. M. 6 30.2 6 31.4	H. M. 6 33.8 6 35.0	H. M. 6 37.5 6 40.0	H. M. 7 56.0 7 28.0	MM. 2.5 1.0	h. m. —	A. B. Two equal maxima, separ- ated by minimum.
587	Oct. 7	8 45.0	—	8 57.0	9 15.5	0.2	0 12	B only.
588	" 7	22 57.0	—	—	23 7.0	0.1	0 10	B only.
589	" 9	5 54.0	—	—	5 56.0	—	0 2	B only. Slight tremors.
590	" 11	9 4.0	—	—	9 7.0	—	0 3	B only. Slight tremors.
591	" 13	5 19.5	—	—	7 13.0	0.15	1 54	B only.
592	" 14	15 8.0	15 20.0	15 38.0	17 9.0	0.5	2 1	A.
" 14	15 5.6	15 17.0	15 18.0	16 19.0	0.5	1 13	B.	
593	" 15	7 38.0	—	—	8 4.0	—	0 6	A only. Very slight.
594	" 20	2 57.0	—	—	4 19.0	0.1	1 22	A only.
595	" 23	20 20.0	—	20 39.0	21 3.0	0.3	0 43	B only.
596	" 24	21 23.0	21 27.5	21 30.0	22 33.0	0.2	1 15	A.
" 24	21 25.0	21 29.0	21 36.5	22 29.0	0.3	1 4	B.	
597	" 25	9 7.3	—	—	9 12.0	—	0 5	A only.
598	" 28	3 38.0	—	—	0 45.8	—	0 7	A only. Slight tremors.
599	" 28	13 28.0	13 45.0	13 53.0	14 16.0	0.2	0 48	A.
" 28	13 36.0	13 43.3	13 45.5	14 5.0	0.2	0 52	B.	
600	" 29	10 45.0	—	—	10 57.0	0.1	0 10	A.
" 29	10 50.0	—	—	11 0.0	—	—	0 10	B. Very slight.
601	" 30	11 32.5	11 41.0	11 42.1	12 5.5	0.25	0 33	A.
602	" 31	11 32.5	—	—	12 7.0	0.1	0 34	B.
603	" 31	10 52.0	—	—	11 3.0	—	0 11	A only. Slight.
604	" 31	16 0.0	—	—	16 15.0	—	0 2	B. Very slight.
605	Nov. 1	3 9.5	—	—	3 45.5	0.1	0 36	A only.
" 2	5 32.5	5 36.7	6 1.9	9 27.0	3.6	3 54	A. Second max. (imm.) at 8h.5m.	
606	" 6	5 13.8	5 34.0	6 14.0	8 37.4	0.7	3 24	B.
" 6	7 22.9	7 33.2	8 13.7	10 47.4	0.5	3 24	A.	
" 6	9 2.2	—	—	10 14.0	—	1 12	B.	
607	" 6	14 0.0	—	14 50.9	16 52.2	0.3	2 52	A.
" 6	14 1.4	14 9.3	14 10.4	15 14.0	0.2	1 13	B.	
608	" 7	12 35.6	—	—	13 10.7	—	0 35	A.
" 7	12 35.0	—	—	13 7.0	0.1	0 32	B.	
609	" 9	15 25.3	16 5.9	16 17.8	17 16.6	0.4	1 51	A.
" 9	15 35.0	—	—	16 23.4	—	0 48	B.	
610	" 10	19 15.4	—	—	20 9.5	—	0 54	A.
611	" 10	22 55.8	—	—	23 3.9	—	0 19	A.
612	" 11	13 30.9	13 41.5	13 43.4	16 48.6	1.0	3 18	A.
" 11	13 42.4	—	—	14 30.4	0.2	0 48	B.	
613	" 11	23 2.4	—	—	23 32.0	—	0 30	A.
614	" 12	9 4.7	—	—	9 35.6	—	0 40	A.
" 12	9 28.0	—	—	9 29.6	—	0 2	B.	
615	" 12	13 19.0	—	—	13 36.7	—	0 18	A.
" 12	13 24.5	—	—	13 28.9	—	0 2	B.	
616	" 12	16 57.2	—	—	18 19.0	0.2	1 22	A.
" 12	16 54.8	—	—	16 57.2	—	0 2	B.	
617	" 12	22 20.2	—	—	23 38.0	0.1	1 18	A.
" 12	22 25.7	—	—	22 56.0	0.1	0 30	B.	
618	" 15	1 53.3	—	—	3 29.7	0.3	1 36	A.
" 15	2 18.0	—	—	3 3.5	—	0 48	B.	
619	" 18	5 23.0	—	—	7 35.0	—	2 12	B.
620	" 19	4 35.6	—	—	9 28.0	—	4 32	A.
621	" 19	14 44.3	—	—	14 54.8	—	0 19	B.
622	" 20	4 47.0	—	—	5 41.5	—	0 54	A.
" 20	4 7.0	—	—	7 51.3	—	3 44	B.	
623	" 22	7 58.2	—	—	8 26.0	—	0 48	A.
624	" 23	13 0.0	—	about 14h.	15 38.0	0.2	2 58	A.
" 23	13 6.0	—	—	13 57.0	—	0 51	B.	
625	" 24	12 24.5	12 44.6	12 53.3	13 20.2	0.3	0 36	A.
626	" 25	3 35.6	—	—	3 49.8	0.1	0 14	A.
627	" 25	5 7.1	—	—	5 14.2	—	0 7	A.
" 25	5 3.5	—	—	5 16.4	—	0 13	B.	
628	" 27	7 16.6	—	—	7 54.6	—	0 38	A.
629	" 27	10 23.7	11 4.7	11 10.7	12 4.7	0.3	1 41	A.
630	" 28	5 46.2	—	—	6 0.1	—	0 15	A.
631	" 28	21 26.0	—	—	23 16.5	—	1 50	A.

Register from Helwan Observatory, Cairo, Egypt—continued.

No.	Date	Com- mence- ment	L.W. Commence	Max.	End	Max. Ampli- tude	Duration	Remarks
632	Nov. 30	H. M. 12 47.0	H. M. —	H. M. —	H. M. 13 29.0	MM. —	H. M. 0 42	A.
633	" 30	18 14.2	—	—	18 54.5	—	0 40	A.
634	" 30	22 5.0	—	—	24 5.0	—	2 0	A.
636	Dec. 1	21 19.0	—	—	21 52.0	0.1	0 34	A.
638	" 7	13 7.0	—	—	13 23.0	0.1	0 16	A.
639	" 12	13 4.6	—	13 35.0	15 49.0	4.0	2 44	A.
640	" 18	13 5.2	—	—	15 46.0	see note	2 41	B.
		15 41.2	15 45.7	15 49.9	20 8.0	13.0	4 27	A.
		15 42.0	15 46.4	15 51.1	lost	11.0	—	B.
641	" 21	14 59.0	—	—	15 31.0	0.1	0 32	A.
642	" 22	3 30.0	—	—	3 43.0	0.1	0 13	A.
643	" 23	21 21.0	—	21 27.7	21 40.0	0.4	0 28	A.
644	" 28	4 24.4	4 25.7	4 37.2	8 30.0	13.0	4 6	A.
		4 24.7	—	4 37.1	6 42.0	see note	2 18	B.

NOTE.—The boom of Seismograph B was not always working quite freely.
Clock of Seismograph A under repairs from October 1 to October 13, and from October 22 to October 23.

Register from the Syrian Protestant College Observatory, Beirut, Syria—continued.

No.	Date	Com- mence- ment	L.W. Commence	Max.	End	Max. Ampli- tude	Duration	Remarks
356	Oct. 23	H. M. 20 24.5	H. M. —	H. M. 20 27.0	H. M. 20 35.0	MM. 0.5	H. M. 0 8.5	—
357	" 24	21 24.0	—	21 30.0	21 42.0	0.8	0 18	—
358	" 27	4 42.5	—	5 12.5	5 47.5	0.3	1 5	—
359	" 29	9 41.5	—	9 43.5	9 48.0	0.3	0 6.5	—
360	" 30	11 30.0	—	11 39.5	11 33.5	0.9	0 3.5	—
361	Nov. 2	—	5 35.5	5 53.0	6 51.5	1.2	—	Beginning obscured by air tremors.
362	" 2	7 31.5	—	7 59.5	8 4.5	0.3	0 13	—
363	" 6	7 27.5	—	8 4.0	8 37.0	0.8	1 9.5	—
364	" 6	14 9.0	—	—	14 10.5	—	0 1.5	Thickening.
365	" 6	14 35.5	—	14 38.5	15 3.5	0.5	0 28	—
366	" 11	15 41.5	—	13 43.5	14 24.5	0.3	0 43	—
367	" 23	1 6.5	—	1 9.0	2 2.0	0.3	0 55.5	—
368	Dec. 12	—	—	13 31.5	—	2.5	—	Light dim.
369	" 18	15 42.5	15 49.0	15 53.0	16 44.0	2.1 +	1 1.5	Pendulum swings entirely across film.
				16 24.0		3.0		Messina.
370	" 28	4 25.0	4 31.0	4 37.0	7 57.0	8.0	3 32	—

Period 16 seconds. Imm. = 0°38.

Register from the Syrian Protestant College Observatory, Beirut, Syria.
Observer, ALFRED H. JOY, M.A.

No.	Date	Com- mence- ment	L.W. Commence	Max.	End	Max. Ampli- tude	Duration	Remarks
1908								
336	July 13	H. M. 21 42.0	H. M. —	H. M. 21 45.5	H. M. 22 5.0	MM. 0.6	H. M. 0 18.5	—
337	" 18	11 41.0	—	11 47.0	11 48.0	0.2	0 7	—
338	" 26	16 44.5	—	16 50.5	16 56.5	0.7	0 12	—
339	" 26	17 56.5	—	18 2.5	18 9.5	0.6	0 13	—
340	Aug. 12	17 2.5	—	17 8.5	17 49.5	0.4	0 47	—
341	" 12	19 42.5	—	19 46.0	19 50.5	—	0 8	Thickening.
342	" 14	1 53.5	—	1 58.5	2 5.5	—	0 12	—
343	" 17	11 0.0	11 33.5	11 46.0	13 33.5	1.4	2 33.5	—
344	" 18	19 15.5	—	19 20.5	19 24.5	0.2	0 9	—
345	" 19	2 18.0	—	2 22.5	2 27.0	0.2	0 9	—
346	" 20	10 4.0	10 22.5	10 23.0	11 8.5	2.0	1 4.5	—
347	" 22	13 32.5	—	—	13 35.0	—	0 2.5	Thickening.
348	" 22	20 42.5	—	20 44.5	20 48.0	—	0 5.5	—
349	" 25	21 28.5	—	—	21 37.5	—	0 9	—
350	Sept. 21	7 13.5	8 40.0	8 43.0	9 7.0	0.4	1 53.5	—
351	" 23	7 27.5	—	7 43.0	7 54.0	0.4	0 26.5	—
352	" 28	6 29.5	—	6 31.5	7 8.5	9.3	0 39	—
353	Oct. 13	4 34.0	—	6 28.0	7 28.0	0.3	1 54	—
354	" 14	15 17.0	—	15 31.8	15 50.0	1.3	0 33	—
355	" 20	3 32.5	—	—	3 41.0	—	0 8.5	Thickening.

Register from Ponta Delgada, St. Miguel, Azores.
Director, Lieutenant-Colonel F. A. CHAVES.

No.	Date	Com- mence- ment	Max.	Max. Ampli- tude	Duration	Remarks
1908						
291	July 8	H. M. 3 16.0	H. M. —	MM. —	H. M. 0 3.8	I of Mercalli's scale.
292	" 16	17 10.7	—	—	0 1.3	I idem.
294	Aug. 3	4 9.0	—	—	0 0.8	I idem.
298	" 29	18 14.5	18 23.5	1.2	1 7.5	I idem. Thickening of line on 25th, 26th, 29th, 30th, and 31st.
299	Sept. 4	16 55.2	16 53.0	13.4	0 57.3	I idem. Thickening of line from August 31 to September 4.
	" 5	13 38.8	—	—	0 55.7	I idem.
304	Oct. 8	11 41.0	—	—	0 15.0	I idem. Thickening of line from 22h.32m. on 10th to 19h.20m. on 11th.
305	" 15	16 53.0	—	—	2 42.5	I idem. Thickening of line: from 18h.31m. on 14th to 16h.51m. on 15th; from 5h.54m. to 13h.43m. on 16th; from 1h.29m. on 17th to 3h.23.5m. on 18th.

Register from Ponta Delgada, St. Miguel, Azores—continued.

No.	Date	Comme- ment		Max.	Max. Am- pli- tude	Dura- tion	Remarks
		H. M.	H. M.				
307	Oct. 28	H. M. 13 29.0	—	—	—	0 8.0	I of Mercalli's scale. Thickening of line from 19h. 33m. on October 31 to 9h. 22m. on November 1.
308	Nov. 6	7 38.0	—	—	—	1 12.0	I idem.
310	" 18	10 12.5	—	—	—	0 2.0	I idem.
312	Dec. 3	9 4.0	—	—	—	0 3.0	I idem.
313	" 12	13 15.0	—	—	—	0 51.0	I idem. Thickening of line from 17h. 28m. on 13th to 19h. on 14th.
	" 19	—	—	—	—	—	Earthquake in all the Island, III of the Mercalli's scale, at 7h. 10m.
314	" 25	21 31.9	21 33.1	1.6	—	0 23.2	I of Mercalli's scale. Thickening of line.
	" 28	4 28.1	4 45.6	3.6	—	1 19.0	I idem.

Mean scale value, Imm. = 0° 48. Amplitude refers to full range of motion.

Register from the Royal Observatory, Cape of Good Hope, South Africa—continued.

No.	Date	Comme- ment		L.W. Commence	Max.	End	Max. Ampli- tude	Dura- tion	Remarks
		H. M.	H. M.						
507	Nov. 6	H. M. 15 14.0	—	—	—	—	—	—	Slight vibrations.
508	" 9	15 38.0	—	—	15 48.0	16 19.0	0.4	0 25	—
509	" 11	13 43.5	—	—	—	14 45.0	—	1 1.5	Slight vibrations.
510	" 23	—	—	—	13 46.0	—	—	—	Thickening.
511	" 24	—	—	—	12 12.0	—	—	—	"
512	Dec. 12	13 18.5	—	—	13 50.3	15 20.0	1.3	2 1.5	—
513	" 18	13 54.0	—	—	16 14.0	17 24.0	0.7	1 3.0	—
514	" 28	4 40.7	4 54.9	5 0.3	7 15.9	—	7.0	2 35.2	Amplitude measured from base-line.
515	" 30	—	—	0 18.7	—	—	—	—	Slight thickening. Shock reported from Namaqualand.

September 26, 12h. 34m., to September 27, 8h., boom displaced.
December 26, 17h. 30m., to December 27, 9h., no record, clock stopped.

July	Imm. boom motion = 0° 36.	Boom period 20 secs.
August	" = 0° 40.	" 15.5 "
September	" = 0° 37.	" 20 "
October	" = 0° 42.	" 19.8 "
November	" = 0° 38.	" 20 "
December	" = 0° 38.	" 19.5 "

Register from the Royal Observatory, Cape of Good Hope, South Africa.
Director, S. S. HOUGH, M.A., F.R.S.

No.	Date	Comme- ment		L.W. Commence	Max.	End	Max. Ampli- tude	Dura- tion	Remarks
		H. M.	H. M.						
1908									
481	July 28	—	—	—	8 28.0	—	—	—	Thickening.
492	Aug. 12	16 43.0	—	—	16 56.5	17 21.0	0.4	0 38	Followed by well-defined tremors at 18h. 5m. and 19h. 50m.
493	" 17	10 46.0	10 53.5	—	10 59.0	13 53.0	7.5	3 7	Instrument disturbed to wind watch, 12h. 25m.
494	" 19	—	—	—	1 25.0	—	—	—	Thickening.
495	" 20	10 16.0	—	—	10 46.5	11 35.0	0.4	1 19	Sudden disturbance. ? Seismic.
496	" 21	—	—	—	7 45.0	—	—	—	—
497	" 25	20 48.0	—	—	20 51.0	20 53.0	0.4	0 5	—
498	" 29	—	—	—	19 1.5	—	—	—	Thickening.
499	Sept. 4	17 36.0	—	—	17 51.0	—	—	0 15	Slight vibrations.
500	" 21	7 7.0	—	—	8 10.0	9 8.0	0.6	2 1	—
501	" 26	—	—	—	6 9.0	—	—	—	Thickening.
502	" 28	7 12.0	—	—	7 27.0	—	—	0 15	Vibrations.
503	Oct. 7	—	—	—	1 57.0	—	—	—	Thickening.
504	" 13	5 44.5	—	—	7 24.0	—	—	1 39.5	Slight vibrations.
505	Nov. 2	5 33.0	5 59.0	6 1.5	8 15.0	1.4	2 42	—	—
506	" 6	7 49.0	8 22.0	8 22.0	9 17.0	8.9	1 28	—	—

Register from Alipore Observatory, Calcutta.
Director, GILBERT T. WALKER, M.A., F.R.S.

No.	Date	Comme- ment		L.W. Commence	Max.	End	Max. Ampli- tude	Dura- tion	Remarks
		H. M.	H. M.						
1908									
555	Jan. 11	H. M. 3 41.7	H. M. 3 49.8	H. M. ?	H. M. 5 17.9	MM. ?	H. M. 1 36.2	—	Time of maximum and its amplitude cannot be determined as the boom moved throughout the trace.
556	" 12	10 26.9	—	10 31.0	10 38.7	0.75	0 11.8	—	—
557	" 15	13 6.6	—	13 29.0	14 15.4	3.50	1 8.8	—	—
558	" 16	9 19.1	—	9 20.1	9 23.2	0.50	0 4.1	—	—
559	" 27	15 53.6	—	16 2.7	16 4.2	16 28.6	3.25	0 33.0	—
560	Feb. 9	—	—	18 15.4	18 20.4	19 48.9	13.00	1 33.5	* Measured from the base-line.
561	Mar. 5	2 21.1	2 30.7	2 44.9	4 13.0	6.00	1 51.9	—	The displacement commenced in continuation of the usual morning air tremor.
562	" 12	19 32.2	—	—	19 51.5	—	0 19.3	—	Thickening of the line.
563	" 13	6 21.8	6 23.8	6 25.8	7 6.0	2.75	0 44.2	—	—
564	" 21	4 25.7	—	—	5 1.3	—	0 35.6	—	Thickening of the line.
565	" 23	12 14.8	12 38.2	12 49.0	13 44.8	1.50	1 30.0	—	—

Register from Alipore Observatory, Calcutta—continued.

No.	Date	Com- mence- ment	L.W. Com- mence	Max.	End	Max. Ampli- tude	Duration	Remarks
		H. M. 6 16.7	H. M. —	H. M. ?	H. M. 7 5.0	MM. ?	H. M. 0 48.3	
566	April 4							Time of maximum and its amplitude cannot be determined as the boom moved throughout the trace.
567	" 10	8 5.3	8 7.5	8 15.1	8 47.2	1.25	0 41.7	
568	May 5	6 5.9	6 31.3	6 50.6	8 7.9	4.50	2 42.0	
569	" 11	26.6	11 31.7	11 34.2	12 29.4	2.00	1 2.8	
570	" 15	8 52.7	—	9 28.2	9 49.5	1.00	0 56.8	
571	" 20	7 40.8	8 7.7	8 8.7	8 34.2	2.25	0 53.4	
572	June 3	16 1.0	16 4.1	16 8.1	16 47.8	3.50	0 46.8	
573	" 12	8 41.6	—	8 45.1	8 48.7	0.50	0 7.1	
575	Aug. 12	16 18.8	—	16 37.1	17 24.8	0.50	1 6.0	
576	" 12	18 59.3	19 4.4	19 20.7	19 45.0	1.00	0 45.7	
577	" 17	10 57.5	11 15.3	11 54.1	13 37.5	2.75	2 40.0	
578	" 20	9 57.1	—	9 59.6	11 39.1	1.8	1 33.0	* Max. amplitude cannot be determined as the boom moved throughout the trace.
579	Sept. 7	15 9.6	—	15 12.2	15 21.3	0.50	0 11.7	
580	" 9	20 45.4	—	—	21 0.7	—	0 15.3	Thickening of the line.
581	" 23	7 3.4	7 12.1	7 14.6	7 49.3	4.00	0 45.9	
582	" 26	6 10.0	—	6 17.1	6 51.7	0.50	0 41.7	
583	" 28	4 32.1	—	4 32.6	4 38.7	0.75	0 6.6	
584	" 28	6 53.2	6 56.3	6 59.8	7 10.5	0.75	0 17.3	
585	" 28	7 48.2	—	7 49.7	7 56.3	0.50	0 9.1	
586	Oct. 1	9 37.0	—	9 38.0	9 42.1	0.75	0 5.1	
587	" 13	5 47.1	6 24.8	6 26.8	7 12.6	3.50	1 25.5	
588	" 13	7 58.3	—	—	8 3.9	—	0 5.6	Thickening of the line.
589	" 14	15 32.7	—	15 34.2	16 5.2	1.50	0 32.5	
590	" 20	2 51.5	2 57.6	3 13.9	3 57.6	0.75	1 6.1	
591	" 20	5 52.4	5 54.3	6 5.6	6 25.5	1.00	0 33.1	
592	" 23	20 18.6	—	20 22.2	20 52.6	2.50	0 34.0	
593	" 24	21 20.0	—	21 23.6	21 43.4	2.00	0 23.4	
594	Nov. 2	5 21.2	5 23.3	5 33.9	6 48.1	14.00*	1 26.9	* Measured from the base-line.
595	" 2	7 29.8	7 37.0	7 47.1	8 13.6	1.50	0 43.8	
596	" 6	7 26.8	7 39.5	8 2.0	9 8.1	1.50	1 41.3	
597	" 6	14 5.2	14 23.0	14 24.0	14 47.9	1.00	0 42.7	
598	" 9	16 31.1	—	—	17 2.1	—	0 31.0	Thickening of the line.
599	" 10	19 5.4	—	—	19 38.0	—	0 32.6	Thickening of the line.
600	" 11	13 26.0	13 36.2	13 50.9	14 27.0	1.25	1 1.0	
601	" 23	12 47.4	—	13 12.8	13 39.3	0.50	0 51.2	
602	" 30	21 50.9	—	21 56.5	22 7.7	0.75	0 16.8	
603	Dec. 12	12 58.1	—	13 1.1	14 38.8	?	1 40.7	Time of maximum and its amplitude cannot be determined as the boom moved throughout the trace.
604	" 18	15 42.4	—	15 48.5	17 5.8	3.50*	1 23.4	* Measured from the base-line.

No trace from March 26 to March 28, as the driving clock stopped.

There was a displacement on June 28, 1908, at about 17h.15m. G.M.T., with a max. amplitude of 1.25mm. Times of commencement, max. amplitude, and end cannot be determined, as the watch stopped.

Sensibility throughout, 1mm. = 0°.38 of tilt.

Register from the Government Observatory, Bombay.
Director, N. A. F. Moos.

No.	Date	Com- mence- ment	L.W. Com- mence	Max.	End	Max. Ampli- tude	Duration	Remarks
1908								
239	July 13	H. M. 21 44.8	H. M. —	H. M. 21 49.4	H. M. 22 6.1	MM. 0.5	H. M. 0 21.3	
233	" 26	16 19.6	—	16 26.7	16 44.5	0.5	0 24.9	
254	" 26	17 30.5	—	17 39.1	17 58.4	0.4	0 27.9	
292	Aug. 17	11 34.1	—	11 43.7	13 16.2	1.5	1 42.1	
296	" 20	10 1.7	—	10 4.6	11 4.3	5.8	1 2.6	
301	" 22	12 13.4	—	12 13.8	12 20.1	0.3	0 6.7	
317	Sept. 9	6 50.8	—	6 51.2	7 3.5	1.0	0 12.7	
332	" 23	7 13.5	—	7 19.0	7 42.0	1.1	0 28.5	
336	" 26	6 8.5	—	6 17.6	6 33.5	0.6	0 25.0	
339	" 28	6 49.3	—	6 49.5	7 3.3	0.4	0 14.0	
343	Oct. 13	6 23.5	—	6 35.7	7 6.3	0.5	0 42.8	
347	" 20	3 1.3	—	3 14.4	3 31.4	0.8	0 30.1	
350	" 23	20 20.7	—	20 24.8	20 32.5	0.6	0 11.8	
351	" 24	21 23.3	—	21 23.9	21 35.0	0.7	0 11.7	
353	Nov. 2	5 22.4	—	5 35.9	6 43.9	4.2	1 21.5	
354	" 2	7 27.8	—	7 37.6	7 53.0	0.5	0 25.2	
356	" 6	7 29.0	—	7 48.4	8 38.9	1.0	1 9.9	
357	" 6	14 28.5	—	14 35.5	14 58.6	0.5	0 30.1	
360	" 11	13 27.8	—	13 50.4	14 20.1	2.2	0 52.3	
361	" 12	16 53.0	—	16 58.0	17 4.0	0.2	0 11.0	
362	" 12	22 6.1	—	22 16.2	22 21.3	0.3	0 15.2	
369	" 23	12 59.8	—	13 23.7	13 36.2	0.2	0 36.4	
384	Dec. 12	13 0.1	—	13 10.7	13 55.9	3.4	0 55.8	
385	" 12	19 5.2	—	19 27.7	19 44.3	0.3	0 35.1	
390	" 18	—	—	15 48.3	16 41.7	3.7	—	Commencement lost in shifting time.
396	" 28	4 30.3	4 39.0	4 57.3	6 14.0	2.2	1 43.7	

Between July 1 and December 31, 1908, 1mm. of amplitude = 0°.41.

Where no distinction of P.T. or L.W. can be made, the commencement of the disturbance is entered in the column of "Commencement."

Register from the Solar Physics Observatory, Kodakānal, Madras.
Director, C. MICHE SMITH.

No.	Date	Com- mence- ment	L.W. Com- mence	Max.	End	Max. Ampli- tude	Duration	Remarks
1908								
33	July 13	H. M. 21 46.6	H. M. 21 48.5	H. M. 21 50.1	H. M. 22 18	MM. 0.6 = 0.3	H. M. 0 31	
34	" 20	12 38.2	—	—	12 48	—	0 10	Widening of line.
35	" 26	16 12.0	16 20.8	16 22.3	16 52	2.0 1.0	0 40	
36	" 26	17 27.4	17 34.2	17 36.1	18 03	1.6 0.8	0 36	
37	Aug. 4	14 29.7	—	—	15 47	—	1 17	Widening of line.
38	" 12	16 1.7	—	—	17 18	—	1 16	
39	" 12	18 56.0	19 16.0	19 51.0	19 55	1.0 0.5	0 59	
40	" 17	11 2.8	11 35.1	11 38.2	13 17	2.5 1.1	2 14	
41	" 20	9 53.7	—	10 9.1	11 28	2.6 1.1	1 34	
42	" 22	12 12.5	—	12 17.2	13 29	—	0 17	Widening of line.
43	" 22	19 33.6	—	—	19 51	—	0 17	
44	Sept. 9	6 54.6	—	—	7 16	—	0 21	
45	" 9	20 42.3	—	—	20 51	—	0 09	
45a	" 21	6 1.0	—	—	7 58	—	1 57	
46	" 23	7 9.0	7 13.1	7 15.1	8 10	4.1 1.8	1 01	

Register from the Solar Physics Observatory, Kodakānal, Madras—continued.

No.	Date	Com- mence- ment	L.W. Commence	Max.	End	Max. Ampli- tude	Dura- tion	Remarks
47	Sept. 26	H. M. 5 48.3	H. M. 6 8.4	H. M. 6 9.5	H. M. 6 37	MM. 0.4	0.2	0.31
48	" 28	6 41.6	6 53.0	6 55.5	7 10	0.6	0.3	0.28
49	Oct. 13	5 44.2	6 38.6	6 42.2	7 18	0.3	0.1	1.34
50	" 14	15 37.7	15 41.8	6 44.9	15 49	1.0	0.5	0.11
51	" 30	2 49.5	3 8.0	3 10.9	3 47	0.6	0.3	0.57
52	" 24	21 26.4	21 27.4	22 1.6	22 16	0.7	0.3	0.50
52a	Nov. 2	5 18.2	—	5 27.1	7 10	4.0	1.7	1.52
52b	" 2	7 28.0	7 30.5	7 32.0	7 57	1.1	0.5	0.29
53	" 6	7 23.4	7 54.6	7 59.7	8 56	0.6	0.2	1.33
54	" 6	14 15.1	14 38.2	14 39.2	15 7	0.7	0.3	0.52
55	" 9	16 26.4	—	16 36.1	16 53	—	—	0.27
56	" 11	13 26.2	13 45.8	13 47.4	14 51	4.0	1.7	0.15
57	" 12	16 44.4	16 48.5	16 50.5	16 59	0.7	0.3	0.18
58	" 12	22 0.8	22 6.4	22 9.0	22 21	0.9	0.4	0.20
59	" 15	1 47.4	1 56.6	1 58.1	2 14	0.6	0.3	0.27
60	" 23	12 58.7	13 20.3	13 22.3	13 35	0.6	0.3	0.36
61	" 23	3 8.6	—	3 11.9	3 19	—	—	0.10
62	Dec. 1	3 8.8	—	3 27	3 27	0.6	0.3	0.18
63	" 12	12 59.9	13 4.5	13 10.6	14 25	5.0	2.3	1.52
64	" 12	19 7.4	19 25.4	19 25.8	19 59	0.5	0.2	0.25
65	" 18	15 42.6	15 49.6	15 52.7	17 7	3.6	1.7	1.24
66	" 22	3 4.7	—	—	3 23	—	—	0.18
67	" 28	4 29.4	4 58.6	5 0.4	7 23	3.0	1.4	2.54

Register from Irkutsk Magnetical and Meteorological Observatory.
Director, A. V. VOZNESSENSKY.

No.	Date	Com- mence- ment	L.W. Commence	Max.	End	Half Max. Ampli- tude	Dura- tion	Remarks
1908								
1457	Jan. 11	H. M. 3 46.6	H. M. 3 51.7	H. M. 3 53.0	H. M. 5 10	MM. 3.0	1.23	—
1458	" 12	10 57.2	10 42.1	10 43.5	11 14	0.7	1.37	—
1459	" 15	12 59.0	13 8.4	13 16.7	14 52	2.5	1.53	—
1460	" 16	9 11.1	—	9 19.6	9 46	0.3	0.35	—
1462	" 17	16 22.3	—	16 25.2	16 34	0.2	0.12	—
1463	" 27	15 58.1	—	16 2.7	16 5.0	1.4	0.44	—
1468	Feb. 1	23 54.9	24 18.0	24 30.9	25 16	0.4	1.21	—
1470	" 4	8 47.5	—	8 48.2	8 59	0.3	0.11	—
1471	" 5	12 23.9	—	12 25.5	12 51	0.3	0.27	—
1475	" 9	18 19.1	18 23.8	18 30.4	20 00	6.2	1.41	—
1477	" 14	9 30.4	—	9 32.0	9 44	0.2	0.14	—
1484	Mar. 2	15 45.4	15 48.4	15 49.2	16 12	0.3	0.27	—
1485	" 2	20 41.8	—	20 45.3	21 7	0.2	0.25	—
1486	" 5	< 2 35.2	2 42.3	2 44.0	4 11	1.8	1.36	—
1488	" 12	19 35.5	—	19 37.6	10 54	0.2	0.18	—
1489	" 13	6 33.9	6 35.4	6 36.0	7 12	1.0	0.38	—
1492	" 17	1 12.1	1 13.5	1 14.4	1 39	0.9	0.27	—
1494	" 23	12 42.4	—	12 44.0	13 40	0.3	0.53	—
1496	" 26	23 18.6	23 21.7	24 9.1	26 07	2.0	2.46	—
1497	" 27	4 35.0	4 49.5	4 50.9	5 50	0.7	1.24	—
1498	" 27	19 4.7	—	—	19 25	—	0.20	—
1500	April 4	6 22.3	6 31.7	6 33.9	7 5	0.8	0.43	—
1501	" 7	1 42.6	—	—	2 13	—	0.30	—
1502	" 7	16 11.2	—	16 30.6	16 48	0.3	0.37	—
1503	" 10	0 15.1	—	—	1 21	—	1.06	—
1505	" 16	17 49.5	17 50.2	17 51.9	18 7	0.7	1.27	—
1506	" 19	8 3.0	8 5.3	8 12.8	8 59	1.0	0.49	—

Register from Irkutsk Magnetical and Meteorological Observatory—continued.

No.	Date	Com- mence- ment	L.W. Commence	Max.	End	Half Max. Ampli- tude	Dura- tion	Remarks
1507	April 21	H. M. 13 18.6	H. M. 13 26.2	H. M. 13 59	MM. 0.3	H. M. 9 46	0 26	—
1509	" 25	22 6.5	—	22 9.1	22 32	0.3	0 26	—
1511	" 26	22 6.7	—	22 13.6	22 44	0.3	0 37	—
1513	May 3	0 55.3	1 0.8	1 9.3	2 23	4.0	1 27	—
1514	" 5	6 24.5?	6 31.1?	6 48.4?	7 47?	1.2	1 22?	—
1517	" 11	14 4.5	—	14 22.1	14 46	0.3	0 42	—
1518	" 11	16 32.1	—	16 34.4	16 58	0.3	0 26	—
1519	" 12	20 34.8	—	20 40.7	21 29	0.3	0 54	—
1521	" 15	8 49.0	8 48.8	9 9.9	10 35	3.3	1 54	—
1522	" 16	7 35.0	—	7 39.4	7 54	0.2	0 19	—
1523	" 17	13 2.1	—	13 8.1	13 27	0.2	0 25	—
1524	" 20	8 0.4?	8 17.0?	8 21.4?	9 13?	1.0	1 13	—
1525	June 3	6 32.8	—	6 39	—	—	0 05	—
1526	" 3	16 8.8	13 17.0	16 19.6	17 11	1.8	1 07	—
1527	" 6	17 11.8	—	—	17 32	—	0 12	—
1528	" 9	2 59.4	—	—	3 26	—	0 27	—
1530	" 12	8 49.8?	8 51.0?	5 51.2?	9 12?	0.3	0 22	—
1533	" 27	14 30.5	14 33.1	14 41.8	15 16	0.6	0 45	—
1534	" 28	17 20.5	—	—	17 26	—	0 06	—
1535	" 28	18 45.9	—	—	18 46.2	21 58	0.4	0 12
1537	July 1	7 41.7	7 45.0	7 48.8	8 6	6.4	0 24	—
1541	" 13	21 14.3	21 21.2	21 23.4	22 32	2.0	1 18	—
1543	" 25	21 38.6	—	21 39.9	21 49	0.2	0 10	—
1544	" 26	16 28.7	16 33.5	16 35.3	17 12	0.6	0 43	—
1545	" 26	17 43.3	17 47.0	17 49.1	18 49	0.9	1 07	—
1546	Aug. 9	16 22.8	—	—	16 39	—	0 17	—
1547	" 9	19 42.7	—	—	19 59	—	0 16	—
1552	" 17	10 56.8	11 7.4	12 21.0	13 45	1.3	2 48	—
1553	" 19	23 53.8	—	—	24 4	—	0 10	—
1554	" 20	9 59.2	10 3.5	10 6.8	11 33	2.0	1 34	—
1556	" 22	12 13.0	—	12 16.8	12 28	0.2	0 15	—
1557	" 22	19 28.6	19 33.7	19 33.4	20 29	0.3	1 09	—
1558	Sept. 1	12 26.8	—	12 35.3	12 55	0.2	0 28	—
1559	" 9	6 50.3	6 54.4	6 55.2	7 11	0.5	1 21	—
1561	" 12	12 48.7	—	12 53.1	13 5	0.3	0 16	—
1564	" 13	4 22.7	4 32.0	4 32.4	4 46	0.4	0 23	—
1565	" 17	15 20.9	—	15 22.7	15 31	0.3	0 10	—
1566	" 20	18 31.1	—	—	18 40	—	0 09	—
1567	" 21	6 48.9	6 59.7	7 24.0	8 16	1.0	1 27	—
1568	" 22	3 14.4	—	—	3 36	—	0 22	—
1569	" 23	7 20.8	7 32.7	7 36.4	8 4	0.6	0 42	—

Register from St. Clair Experiment Station, Trinidad, B.W.I.
Director, F. EVANS.

No.	Date	Com- mence- ment	L.W. Commence	Max.	End	Max. Ampli- tude	Dura- tion	Remarks
1908								
435	July 8	H. M. —	H. M. 18 6	H. M. 18 7	H. M. 18 8	MM. 0.5	H. M. 0 2	Succeeded by slight tremors for about 10 minutes.
436	" 10	19 19	19 20	19 21	19 28	1.0	0 9	—

Register from St. Clair Experiment Station, Trinidad, B. W. I.—continued.

No.	Date	Com- mence- ment	L.W. Commence	Max.	End	Max. Ampli- tude	Duration	Remarks
		H. M.	H. M.	H. M.	H. M.	MM.	H. M.	
437	Aug. 17	11 1	11 13	11 33	12 17	3.0	1 16	Succeeded by tremors about 4 hr. duration. A gradual displacement of the bar, beginning about 3h.30m. and ending at time of max. amp., of 2 mm. is recorded.
438	" 19	0 51	0 54	0 55	1 3	0.5	0 12	
439	" 22	—	4 17	4 18	4 21	0.5	0 4	
440	Sept. 7	—	15 28	15 29	15 34	0.3	0 6	
441	" 10	2 59?	5 33	5 43	5 57	1.0	2 58	Interrupted record.
442	" 12	—	5 4?	5 20	5 22	0.5	0 18	

Register from Geographical Society, Lima.
Observer, H. HOPE JONES.

Date	Commence- ment	Max.	Max. Ampli- tude	Dura- tion	Remarks
1908					
	H. M.	H. M.	MM.	H. M.	
July 16	17 57	17 59	1.5	0 17	—
" 21	8 53	—	—	0 12	—
" 24	15 39	—	—	0 02	—
Aug. 8	22 10	22 10	—	0 04	—
" 17	10 50	10 52	2.0	2 05	—
" 19	0 31	0 34	5.0	0 25	Trujillo, R.F. No. 2. and Pacasmayo, R.F. Nos. 4 to 5.
" 23	19 10	19 11	0.2	0 03	—
" 30	19 17	19 17	0.4	0 02	—
" 31	5 27	5 27	0.1	0 10	—
Sept. 1	1 40	1 40	0.1	0 01	—
" 1	1 46	1 46	1.0	0 06	—
" 21	6 51	7 24	0.6	1 36	—
Oct. 4	11 3	11 4	0.3	0 11	—
" 13	17 14	17 25	1.5	1 57	—
" 27	5 19	5 19	—	—	—
Nov. 6	21 10	21 10	—	0 02	—
" 9	23 15	23 16	0.2	0 03	—
" 12	15 14	15 20	2.2	0 25	—
" 12	12 8	—	0.5	0 03	Lima, R.F. No. 4.
" 22	19 26	19 27	0.3	0 04	—
" 27	11 00	11 2	1.6	0 15	—
" 30	22 28	22 29	—	0 02	—
Dec. 3	6 5	6 5	—	0 03	—
" 13	4 36	4 36	0.2	0 01	—

December 20, instrument hung up for want of paper.

Average of test for sensibility, 1° on calibrating screw gave 4mm.
Greenwich Mean Time, based on time-signals received from Washington.
R.F. = Rossi-Forel scale.Register from Toronto, Ont., Canada.
Director, R. F. STUPART, F.R.S.C.

No.	Date	Com- mence- ment	L.W. Commence	Max.	End	Max. Ampli- tude	Dura- tion	Remarks
1908								
		H. M.	H. M.	H. M.	H. M.	MM.	H. M.	
802	July 8	13 16.7	—	—	13 26.2	0.25	0 9.5	—
803	" 13	21 42.6	—	—	21 58.7	0.25	0 16.1	—
804	" 16	17 8.5	—	—	17 13.5	0.2	0 5.0	—
805	Aug. 14	0 57.7	—	1 1.7	1 41.7	2.0	0 44.0	Small and well defined.
806	" 17	10 56.8	—	11 15.2	13 34.5	1.0	2 37.7	Very small and prolonged.
" 18	"	11 4.2	—	—	—	—	—	Suspicion of quake. Cylinder stopped.
807	" 19	0 49.6	—	—	1 0.6	0.05	0 11.0	—
808	" 20	10 43.8	—	—	11 6.8	0.2	0 23.0	—
809	" 22	20 25.2	—	—	20 37.5	0.05	0 12.3	—
810	" 29	18 24.0	—	—	18 52.0	0.4	0 28.0	—
811	Sept. 4	17 13.8	—	—	17 23.6	0.1	0 9.8	—
812	" 21	6 57.8	7 9.5	7 36.2	8 26.8	2.0	1 29.0	Medium.
813	" 24	7 1.8	—	—	0 12.9	—	—	—
814	" 24	18 58.0	—	—	19 4.5	0.1	0 6.5	—
815	Oct. 10	15 26.8	—	—	15 44.8	0.4	0 18.0	—
816	" 13	5 13.1	5 18.5	5 33.2	7 0.0	3.4	1 46.9	Medium.
817	" 13	—	5 27.1	—	—	—	—	—
818	" 14	15 18.6	7 3.6	7 5.9	7 21.0	0.3	0 15.0	Small and well defined. End lost, attending instrument.
819	Nov. 2	5 55.1	—	—	5 59.5	0.05	0 4.4	—
820	" 2	6 31.3	6 35.8	—	7 1.3	0.6	0 30.0	—
821	" 6	7 32.0	7 53.9	8 5.2	8 55.5	2.5	1 23.5	Medium.
822	" 6	14 4.5	—	—	14 52.0	0.5	0 47.5	—
823	" 6	23 13.5	—	—	23 24.0	0.1	0 10.5	—
824	" 9	15 29.0	—	—	15 31.0	0.03	0 2.0	—
825	" 11	13 55.3	—	—	—	—	—	—
826	" 30	21 55.0	21 56.0	21 57.1	24 2.0	6.5	2 7.0	Sudden vibration, shortly after beginning. Earthquake reported from Queen Charlotte Islands.
827	Dec. 12	13 21.5	13 59.7	14 5.6	14 45.5	0.9	1 24.0	—
828	" 25	21 44.6	—	—	21 49.6	0.2	0 5.0	—
829	" 28	4 31.2	4 39.8	5 2.1	6 43.5	1.8	2 12.3	Small. Destructive. Sicilian earthquake.

Vibration, up to December 10 14.9 seconds.
" December 10 to December 12 15.2 "
" after this date 14.9 "
Angular value, to December 10 0°64. "
" after this date 0°67.

Register from Victoria, B.C., Canada.
Superintendent, E. BAYNES REED.

No.	Date	Com- mence- ment	L.W. Commence	Max.	End	Max. Ampli- tude	Dura- tion	Remarks
1908								
816	July 8	H. M. 13 14.3	H. M. —	H. M. —	H. M. 13 43.3	MM. 0.6	H. M. 0 29.0	Marked thicken- ing.
817	" 16	17 12.3	—	—	17 15.5	0.1	0 3.2	—
818	Aug. 12	16 7.1	—	—	17 0.9	0.05	0 58.8	—
819	" 14	0 34.2	1 2.7	1 4.3	1 36.7	2.0	1 2.5	Small and well defined.
820	" 17	10 58.5	—	—	13 16.5	0.7	2 18.0	Very small and prolonged.
821	" 18	11 3.0	—	—	11 11.0	0.3	0 8.0	—
822	" 19	1 5.0	—	—	1 16.5	0.65	0 11.5	—
823	" 20	10 42.6	—	—	11 14.4	0.5	0 31.8	—
824	" 22	19 31.7	—	—	19 37.7	0.15	0 6.0	—
825	" 27	14 51.9	—	—	14 55.9	0.05	0 4.0	—
826	" 29	18 45.6	—	—	19 11.9	0.05	0 26.3	—
827	Sept. 4	17 20.6	—	—	17 34.6	0.05	0 14.0	—
828	" 17	8 48.4	—	—	8 52.4	0.15	0 4.0	—
829	" 21	6 44.3	6 52.0	6 55.5	8 18.5	1.3	1 34.2	Small and pro- longed.
830	" 24	1 25.4	—	—	1 30.4	0.05	0 5.0	—
831	Oct. 1	8 21.1	—	—	8 34.1	0.2	0 13.0	Mixed up with air currents.
832	" 7	4 9.8	—	—	4 16.8	0.15	0 7.0	—
833	" 10	15 5.7	—	—	15 44.7	0.5	0 39.0	—
834	" 13	5 13.7	5 19.6	5 29.1	7 0.0	13.0	1 48.3	Very large.
835	" 13	7 1.0	5 26.5	7 4.0	7 4.0	5.0	2 0 37.6	Moderate.
837	" 14	15 18.3	15 23.8	15 26.7	15 54.5	1.7	0 36.2	—
838	" 20	3 16.5	—	—	3 18.5	0.05	0 2.0	—
839	Nov. 2	5 45.2	—	—	5 48.7	0.1	0 3.5	—
840	" 2	6 9.7	—	—	7 11.7	0.5	1 2.0	—
841	" 6	7 28.5	7 47.0	7 49.5	9 1.0	1.2	1 52.5	—
842	" 6	13 58.5	—	—	15 1.5	1.0	1 3.5	Small and well defined.
843	" 6	23 24.5	—	—	23 33.5	0.1	0 9.0	—
844	" 9	15 57.8	—	—	16 5.8	0.3	0 8.0	Gradual increase and decrease.
845	" 11	13 42.9	—	—	13 52.8	0.1	0 9.9	—
846	" 11	14 42.8	—	—	14 49.3	0.05	0 6.5	—
847	" 30	21 38.4	21 40.7	21 42.0	22 37.9	19.5	0 59.5	Very large earth- quake reported from Queen Char- lotte Islands.
848	Dec. 12	13 18.8	13 54.8	13 55.5	14 39.3	0.6	1 19.5	—
849	" 12	21 10.1	—	—	21 19.3	0.05	0 9.2	—
850	" 18	16 17.7	—	—	17 4.7	0.15	0 47.0	—
851	" 25	—	—	—	—	—	—	Suspicion of a dis- turbance, masked by air currents.
852	" 28	4 33.2	4 43.6	5 19.6	6 11.6	2.6	1 38.4	Medium, Sicilian earthquake.
		4 39.8	5 6.6	—	—	—	1 31.8	

Vibration of boom, 15 seconds. Angular value, 0°76.

Register from Honolulu, T.H.
Observer, W. F. WALLIS. Compiler, F. L. ADAMS.

No.	Date	Com- mence- ment	L.W. Commence	Max.	End	Max. Ampli- tude	Dura- tion	Remarks
1908								
444	Jan. 1	H. M. 18 35.4	H. M. —	H. M. 18 36.4	H. M. 18 41.3	MM. 1.1	H. M. 0 06	Doubtful.
445	" 8	1 47.8	—	1 49.8	1 51.3	0.1	0 04	Small tremors.
446	" 11	3 47.3	4 10.3	4 18.8	6 20.0	1.6	2 33	—
447	" 19	7 37.3	—	7 40.7	7 51.3	0.2	0 14	Small tremors.
448	Feb. 1	23 23.2	23 44.3	23 48.4	25 1.0	1.0	1 38	—
449	" 2	—	14 37.3	14 44.7	—	1.1	—	Beginning and end uncertain.
450	" 5	22 53.7	—	22 57.0	23 4.8	0.5	0 11	Small tremors.
451	" 9	3 57.8	—	4 2.3	4 15.7	0.5	0 18	—
452	" 9	—	—	19 2.2	19 39.3	0.6	—	Began while light was off.
453	" 10	16 55.7	—	16 56.3	17 7.3	1.2	0 12	Possibly local shock.
454	" 14	9 6.3	9 14.9	9 17.0	—	0.6	0 15	Two distinct maxima. Phases slightly obscured.
		—	9 32.2	9 35.3	—	0.6	—	Air tremors.
455	" 18	21 5.8	—	21 7.0	21 8.3	0.1	0 02	Small tremors.
456	" 25	0 3.3	—	0 9.5	0 15.3	0.5	0 12	—
457	" 25	2 25.1	—	2 25.3	2 28.8	0.1	0 04	—
458	Mar. 1	20 35.7	—	20 39.3	20 45.9	0.2	0 10	—
459	" 2	20 40.7	20 50.0	20 54.8	—	0.5	—	—
460	" 5	2 29.3	2 52.8	2 53.1	5 0.3	1.4	2 31	—
461	" 13	18 3.3	—	18 6.8	18 18.1	0.2	0 10	Doubtful.
462	" 15	9 35.0	—	—	10 30.0	0.2	1 05	Small tremors.
463	" 19	18 55.2	—	18 55.3	18 57.8	0.2	0 03	Doubtful.
464	" 21	4 57.3	—	5 5.1	5 11.2	0.5	0 14	Small tremors.
465	" 21	5 53.3	—	6 4.3	6 7.1	0.2	0 14	—
466	" 22	23 38.4	—	23 38.7	23 46.6	0.2	0 08	Small tremors.
		—	—	—	—	—	—	Doubtful.
467	" 23	12 36.4	12 59.3	13 7.4	13 36.0	0.6	1 00	—
468	" 25	19 15.3	—	19 29.6	19 47.5	0.2	0 32	—
469	" 26	23 14.1	23 27.8	23 33.3	3 11.0	9.2	3 57	—
470	" 27	3 57.3	4 12.5	4 17.9	6 51.0	5.5	2 54	—
471	" 30	16 6.8	—	16 10.3	16 17.1	0.2	0 10	Tremors with air effects.
472	April 1	1 23.3	—	1 24.3	1 27.3	0.1	0 04	Tremors with air effects.
473	" 2	7 27.9	—	7 30.2	7 41.3	0.2	0 13	Small tremors.
474	" 4	7 10.3	—	7 15.9	7 19.8	0.1	0 10	—
475	" 7	1 38.4	—	1 44.2	2 0.7	0.4	0 22	—
476	" 10	0 14.2	—	0 34.4	1 14.1	0.2	1 00	—
477	" 12	9 14.1	—	9 18.6	9 26.3	0.5	0 12	—
478	" 13	19 32.5	—	19 35.5	20 0.0	0.5	0 28	—
479	" 19	8 9.3	—	8 30.8	8 41.0	0.2	0 32	—
480	" 21	15 26.8	15 36.0	15 49.3	15 55.0	0.2	0 28	—
481	" 23	0 9.0	1 2.8	1 7.9	2 7.0	1.8	1 58	—
482	" 25	1 13.2	—	1 14.3	1 18.6	0.2	0 05	Small tremors.
483	" 26	—	—	22 16.5	22 27.6	0.4	—	Tremors, begin- ning during time break.
484	May 2	17 52.4	—	17 54.3	17 59.8	0.4	0 07	Small tremors.
485	" 3	0 59.3	1 12.3	1 16.3	2 11.8	1.0	1 12	—
486	" 5	6 30.3	6 53.9	7 1.9	9 4.3	3.0	2 34	—
487	" 5	12 19.3	—	12 38.3	12 48.3	0.2	0 29	Small tremors.
488	" 5	19 51.3	—	19 52.3	19 56.5	0.1	0 05	—
489	" 11	4 2.7	—	4 3.7	4 9.3	0.2	0 07	—
490	" 12	20 41.3	—	20 58.3	21 29.3	0.2	0 48	—
491	" 14	1 47.3	—	1 47.6	1 49.7	0.1	0 02	—
492	" 14	4 23.3	—	4 24.3	4 27.3	—	0 04	—
493	" 15	—	8 45.3	8 50.2	10	1.3	—	Beginning and end obscured.
494	" 17	22 12.8	—	22 15.5	22 19.3	0.2	0 06	Tremors.
495	" 20	8 5.4	—	8 47.1	9 31.1	0.4	1 26	—
496	" 31	3 35.6	—	3 38.4	3 41.3	0.1	0 06	—
497	June 4	2 7.3	—	2 11.5	2 22.9	0.5	0 16	—
498	" 9	22 30.9	—	22 31.3	22 35.3	0.2	0 04	—
499	" 14	7 18.7	—	7 21.1	7 24.2	0.1	0 06	—

Register from Honolulu, T.H.—continued.

No.	Date	Com- mence- ment	L.W. Com- mence- ment	Max.	End	Max. Ampli- tude	Duration	Remarks
		H. M.	H. M.	H. M.	H. M.	MM.	H. M.	
500	June 18	11 7-3	—	11 8-4	11 13-0	0-2	0 06	Tremors. Series of three maxima.
501	" 27	14 39-4	—	14 53-4	15 28-0	0-2	0 49	
<p>NOTES.—January 1 to June 30, 1908.</p> <p>Period of pendulum nearly constant at 19-2 secs. to 19-5 secs. Sensitiveness of instrument:— 1mm. on the trace corresponds to a tilt of 0° 37' on February 15, 0° 42' on April 15, 0° 51' on June 16.</p> <p>No record was obtained for the following periods (G.M.T.):—January 4, 13h.45m. to 15h.13m., clock stopped; January 5, 1h.15m. to 2h.45m., clock stopped; January 7, 4h.40m. to 8h.55m., clock stopped; January 8, 1h.43m. to 2h.37m., cleaning clock; May 30, 15h.54m. to 21h.10m., covering instrument with felt.</p> <p>On most days there was an irregular disturbance ascribed to air currents, usually beginning about midnight and continuing until about eight o'clock in the morning (10h.30m. to 18h.30m., G.M.T.). The amplitude often amounted to 0-5mm., and is sufficient to conceal small distur- bances, and all but the principal portions of larger disturbances. In the latter part of May the instrument was entirely covered with quarter-inch felt, in order to reduce this temperature change and eliminate these effects. The effects were greatly reduced both in amplitude and duration, but could not be entirely eliminated.</p>								
No.	Date	First Com- mence- ment	Second Com- mence- ment	L.W. Com- mence- ment	Max.	End	Max. Ampli- tude	Remarks
		H. M.	H. M.	H. M.	H. M.	H. M.	MM.	
502	July 1	8 8-8	—	8 11-8	8 17-3	0-4	0-4	Tremors.
503	" 6	8 28-6	—	8 43-3	8 47-2	8 55-3	0-5	"
504	" 7	3 37-0	—	3 38-0	3 40-3	—	—	Small tremors.
505	" 13	21 17-4	—	21 20-0	21 21-7	22 17-0	0-6	"
506	" 14	20 24-3	—	—	21 46-5	20 28-0	—	Small tremor.
507	" 25	21 44-5	—	—	21 49-0	0-1	—	"
508	" 26	16 58-3	—	18 7-3	18 37-6	0-1	—	"
509	" 27	18 33-3	—	18 34-3	18 37-8	0-2	—	"
510	Aug. 9	16 11-9	—	16 22-8	16 28-1	16 54-0	0-2	"
511	" 12	—	—	19 22-8	19 29-3	19 57-7	0-6	See note.
512	" 14	0 59-8	1 2-9	1 4-3	1 7-3	3 39-0	1-5	Small tremor.
513	" 17	3 32-3	—	—	3 33-0	3 36-0	—	"
514	" 17	10 58-9	—	11 6-3	11 16-0	11 16-8	0-5	(Possibly only a
515	" 17	11 23-5	11 30-6	11 30-5	11 41-5	13 25-0	2-3	single earthquake
516	" 18	19 13-8	—	—	19 18-3	19 23-0	0-1	Small tremor.
517	" 19	1 3-8	—	—	1 6-3	1 8-2	0-2	"
518	" 19	1 25-4	—	—	1 28-0	1 30-8	—	"
519	" 19	2 15-3	—	—	2 20-0	2 25-0	—	"
520	" 19	3 15-0	—	—	3 16-0	3 19-0	—	"
521	" 20	10 24-8	10 32-3	10 42-3	10 51-8	11 55-3	0-6	End uncertain.
522	" 22	19 21-2	19 22-4	19 25-7	19 26-0	20 28-0	0-6	"
523	" 29	—	—	—	19 13-7	—	—	See note.
524	Sept. 1	12 14-8	—	—	12 29-3	13 2-9	0-1	Small tremor.
525	" 13	4 21-2	4 28-7	4 35-9	4 43-3	5 10-6	0-3	"
526	" 17	1 11-6	—	—	1 18-2	2 27-8	0-1	Small tremor.
527	" 17	8 53-0	—	—	8 54-7	8 59-9	0-2	"
528	" 21	6 35-7	—	6 35-7	6 38-8	9 19-8	0-2	See note.
529	" 22	3 8-7	—	3 16-2	3 23-0	4 13-2	0-4	"
530	" 22	19 47-7	—	—	19 48-4	19 56-3	0-1	Small tremor.
531	" 23	22 14-3	—	—	22 15-2	22 21-2	0-2	"
532	" 23	22 44-4	—	—	22 46-5	22 51-4	0-1	"
533	" 23	23 19-2	—	—	23 19-1	23 14-4	0-1	"
534	" 24	0 22-2	—	—	0 23-7	0 28-0	0-1	"
535	" 24	10 1-0	—	—	10 3-2	10 9-2	—	"
536	" 25	5 47-2	5 53-5	6 8-2	6 11-7	6 54-2	0-4	"
537	Oct. 2	13 49-2	—	—	13 49-2	13 59-2	2-8	Local shock (?).
538	" 7	—	1 4-2	1 14-4	1 19-2	2 13-3	1-0	See note.
539	" 7	3 32-1	—	—	3 33-0	3 35-2	0-1	Small tremor.
540	" 7	4 14-4	—	—	4 16-4	4 20-5	0-1	"
541	" 7	8 12-6	—	—	8 14-1	8 17-8	0-1	"
542	" 10	4 23-1	—	—	4 25-7	4 27-9	0-1	"
543	" 10	15 8-3	—	—	15 10-2	15 15-0	0-5	"
544	" 13	5 16-1	5 23-2	5 31-4	5 34-9	7 16-2	2-1	"
545	" 20	3 4-8	—	3 14-3	3 28-3	3 35-3	0-4	Tremors.
546	" 20	6 1-2	—	6 19-9	6 24-3	6 47-8	0-3	"
547	" 23	0 51-9	—	—	1 28-2	1 34-4	0-2	"
548	Nov. 2	5 35-3	5 41-4	6 3-7	6 16-1	8 33-0	3-3	"

Register from Honolulu, T.H.—continued.

No.	Date	First Com- mence- ment	Second Com- mence- ment	L.W. Com- mence- ment	Max.	End	Max. Ampli- tude	Remarks
		H. M.	H. M.	H. M.	H. M.	H. M.	MM.	
549	Nov. 4	21 23-4	—	—	21 27-0	21 30-0	0-1	Tremors.
550	" 6	7 18-2	7 25-2	7 28-2	7 30-2	9 41-8	9-8	"
551	" 6	—	—	14 1-2	14 9-2	—	—	See note.
552	" 6	23 19-0	—	—	23 31-2	23 39-8	0-2	Tremors.
553	" 9	—	—	15 51-2	15 55-3	—	—	See note.
554	" 10	19 29-5	—	—	19 32-3	19 41-1	0-2	Tremors.
555	" 11	4 9-2	—	—	4 12-2	4 21-1	0-1	"
556	" 11	—	13 40-3	13 55-3	13 59-3	—	—	See note.
557	" 19	5 24-0	—	—	5 36-8	5 50-6	0-1	Tremors.
558	" 20	2 19-1	—	—	3 47-7	3 56-2	0-3	"
559	" 21	1 24-2	—	—	1 26-8	1 32-7	0-2	"
560	" 21	3 32-3	—	—	3 32-5	3 36-8	0-1	"
561	" 22	0 2-8	—	—	0 10-7	0 27-0	0-2	"
562	" 22	6 34-7	—	—	6 46-0	7 0-2	0-2	"
563	" 23	—	—	13 18-2	13 24-6	—	—	See note.
564	" 27	10 32-2	—	—	10 34-7	10 37-2	0-2	Tremor.
565	" 28	21 2-2	—	21 10-2	21 15-3	22 6-0	0-8	"
566	" 30	21 49-0	21 50-2	21 52-4	21 53-2	23 9-6	1-5	"
567	Dec. 1	3 54-1	—	—	4 2-0	4 21-8	0-1	Tremor.
568	" 4	8 57-9	—	—	9 0-2	9 4-3	0-1	"
569	" 12	—	—	13 17-8	13 47-1	—	—	See note.
570	" 12	19 13-5	19 25-3	19 28-4	19 32-2	20 38-6	2-3	"
571	" 16	8 20-3	—	—	8 23-0	8 33-2	0-2	Tremor.
572	" 16	10 45-6	—	—	10 48-3	10 53-2	0-1	"
573	" 28	4 48-7	4 52-7	4 56-9	4 57-5	5 47-1	0-3	See note.
<p>NOTES.—July 1 to December 31, 1908.</p> <p>Period of pendulum, 19-1 sec. Sensitiveness was determined as follows:—August 14, 1mm. corresponded to a tilt of 0° 60'; October 14, 0° 48'; December 16, 0° 41'.</p> <p>The instrument was not recording at the following times, the driving clock being stopped:— August 6, 3h.15m. to 16h.47m.; August 12, 12h.37m. to 15h.58m.; September 13, 17h.27m. to 18h.53m.; October 11, 12h.59m. to 18h.53m.; October 26, 4h.41m. to 9h.31m.</p> <p>The indications are that from December 18 to December 31 the pendulum was not swinging quite freely, due probably to the end of the boom lightly touching the recording box. Readjust- ment was made December 31.</p> <p>On most days there was an irregular disturbance ascribed to air currents, usually beginning about midnight and lasting eight or ten hours. The amplitude was sufficient to conceal small seismic disturbances, and the beginning and end of larger disturbances occurring at the same time.</p> <p>The earthquake of September 21—No. 528—was a sharp local shock which probably had its origin in the Puna district, near the volcano Iglanea on the island of Hawaii.</p> <p>Nos. 511, 538, 551, 553, 556, 563, 569. Beginning and end obscured by air tremors.</p> <p>No. 523. Began at time of daily inspection of instrument.</p> <p>No. 573. Messina earthquake. Pendulum probably not quite free.</p>								

Register from Perth Observatory, Western Australia.
Director, W. E. COOKE, M.A., F.R.A.S.

No.	Date	Com- mence- ment	L. W. Com- mence	Max.	End	Max. Ampli- tude	Remarks
1908							
		H. M.	H. M.	H. M.	H. M.	MM.	
	July 3	—	—	—	6 57.5	—	Frequent small tremors.
	" 4	14 44.3	—	—	—	—	" " "
	" 6	—	—	—	9 59.3	—	" " "
	" 15	23 40.0	—	—	—	—	" " "
	" 17	—	—	—	3 9.2	—	" " "
	" 20	—	—	—	1 3.0	—	" " "
17	" 26	16 14.5	16 19.5	16 37.3	16 56.5	0.5	—
18	" 26	17 26.0	17 29.5	17 41.5	18 8.0	0.75	—
	" 31	2 27.9	—	—	—	—	Frequent small tremors.
	Aug. 2	—	—	—	11 1.5	—	" " "
	" 4	2 45.0	—	—	14 0.0	—	" " "
	" 6	1 30.2	—	—	0 52.5	—	" " "
	" 7	—	—	—	12 46.5	—	" " "
	" 8	2 0.0	—	—	12 46.5	—	" " "
19	" 9	16 13.0	16 19.5	16 20.0	16 33.0	1.0	—
	" 11	2 12.0	—	—	—	—	Frequent small tremors.
	" 12	—	—	—	15 47.0	—	" " "
20	" 12	15 53.1	16 8.6	16 15.6	16 51.4	3.25	—
21	" 12	18 51.6	18 55.8	19 4.4	20 0.0	2.75	—
	" 12	20 42.0	—	—	—	—	Frequent small tremors.
	" 16	—	—	—	19 31.0	—	" " "
22	" 17	11 0.0	11 2.2	11 24.5	13 22.0	3.0	—
				11 29.5	—	3.0	} Small tremor.
				11 33.8	—	3.75	
				11 36.7	—	3.0	
				11 40.3	—	2.75	
	" 19	0 13.0	—	—	0 25.8	—	—
23	" 22	19 22.8	19 45.8	19 48.3	20 17.1	0.75	—
	" 24	7 2.3	—	—	7 21.3	—	Frequent small tremors.
	" 29	12 42.3	—	—	—	—	" " "
	Sept. 1	—	—	—	3 42.0	—	" " "
24	" 9	20 28.2	20 29.7	20 35.0	20 58.2	0.75	—
	" 9	21 0.0	—	—	—	—	Frequent small tremors.
	" 16	23 43.0	—	—	—	—	" " "
	" 17	—	—	—	1 11.0	—	" " "
	" 22	3 7.5	—	—	4 7.5	—	" " "
	" 23	7 30.0	—	—	8 23.0	—	" " "
	" 24	23 58.0	—	—	—	—	" " "
	" 25	—	—	—	7 59.8	—	" " "
25	" 26	5 34.7	5 37.5	5 44.7	6 39.7	1.25	—
	" 26	6 49.0	—	—	—	—	Frequent small tremors.
	" 28	—	—	—	3 57.8	—	" " "
	" 28	—	—	—	5 9.3	—	" " "
	Oct. 2	4 59.8	—	—	14 16.0	—	" " "
	" 2	12 11.3	—	—	—	—	" " "
	" 3	2 0.0	—	—	—	—	" " "
	" 5	—	—	—	13 43.0	—	" " "
26	" 7	1 5.2	1 9.2	1 16.5	1 51.2	2.5	—
				1 19.1	—	2.25	—
	" 7	23 30.0	—	—	—	—	Frequent small tremors.
	" 8	—	—	—	4 8.0	—	" " "
	" 9	0 15.3	—	—	7 36.0	—	" " "
	" 13	5 30.5	—	—	7 36.0	—	" " "
	" 21	10 45.0	No record	—	—	—	—

Register from Perth Observatory, Western Australia—continued.

No.	Date	Com- mence- ment	L. W. Com- mence	Max.	End	Max. Ampli- tude	Remarks
	Oct. 22	H. M.	H. M.	H. M.	H. M.	MM.	
	" 25	4 0.0	No record	—	2 0.0	—	—
	" 26	—	" "	—	1 30.0	—	—
27	Nov. 2	5 24.2	5 28.7	5 38.2	8 12.7	3.75	—
				5 56.2	—	4.0	—
	" 4	2 57.4	No record	—	—	—	—
	" 5	—	" "	—	2 0.0	—	—
	" 7	18 29.0	—	—	—	—	Small tremors.
	" 8	—	—	—	7 17.5	—	—
28	" 10	—	13 33.1	13 54.3	14 33.1	1.25	—
	" 11	21 48.0	—	—	22 18.0	—	Small tremor.
29	" 15	1 39.7	1 45.7	1 48.7	2 21.5	0.75	—
30	" 23	12 53.8	12 56.3	13 9.8	13 36.1	1.0	—
	Dec. 2	6 37.6	—	—	18 25.5	—	Frequent small tremors.
	" 7	23 27.5	—	—	23 35.0	—	" " "
	" 8	1 59.0	No record	—	—	—	—
	" 9	—	" "	—	1 17.0	—	—
31	" 12	13 17.5	13 32.9	13 37.9	14 13.9	1.15	—
32	" 12	19 5.4	19 8.6	19 15.6	20 0.9	2.75	—
	" 18	12 1.0	—	—	15 31.0	—	Small tremor.
33	" 18	16 1.0	16 15.6	16 21.0	17 3.0	0.5	—
	" 24	10 40.8	—	—	11 2.0	—	Small tremor.
34	" 28	5 40.8	5 51.0	5 52.8	7 48.3	0.75	Sicilian earthquake.
	" 29	0 57.9	—	—	1 4.4	—	Small tremor.
	" 30	17 32.0	No record	—	—	—	—
	" 31	—	" "	—	4 33.0	—	—

Imm. = 0.60.

Register from Sydney Astronomical Observatory, New South Wales.
Acting-Director, W. E. RAYMOND. Observer, W. C. GRAHAM.

No.	Date	Com- mence- ment	L. W. Com- mence	Max.	End	Max. Ampli- tude	Duration	Remarks
1906								
		H. M.	H. M.	H. M.	H. M.	MM.	H. M.	
24a	Aug. 16	9 2.6	9 4.9	9 9.4	9 18.0	0.8	0 15.4	—
24b	" 17	0 36.2	1 31.2	1 52.9	4 3.7	7.3	3 27.5	—
24c	" 18	6 59.1	7 7.1	7 12.6	7 53.1	4.0	0 54.1	—
24d	" 22	19 47.6	19 47.7	19 48.3	20 14.1	1.3	0 26.5	—

The above records were omitted from Circular No. 16, page 150. The reason for this was that the original material had been lent to the International Seismological Association and detained by them until after Circular No. 16 had been published.

Register from Sydney Astronomical Observatory, New South Wales—continued.

No.	Date	Com- mence- ment	L.W. Commence	Max.	End	Max. Ampli- tude	Duration	Remarks
1908								
190	June 30	H. M. 14 6.4	H. M. —	H. M. 14 22.6	H. M. 14 53.6	MM. 0.2	0 47.2	Thickening of line.
193	July 6	8 20.1	8 25.2	8 30.1	8 47.3	1.65	0 27.2	—
195	„ 15-16	23 59.0	0 2.7	0 4.0	0 35.0	1.0	0 36.0	—
199	„ 26	16 25.3	—	16 40.3	18 21.8	0.2	1 56.5	Thickening of line.
202	Aug. 9	16 9.7	16 16.2	16 17.2	16 36.0	1.0	0 28.3	—
203	„ 12	15 53.5	15 57.8	16 1.0	3 3.0	1.2	1 9.5	—
204	„ 13	18 53.5	19 3.2	19 13.5	20 2.1	2.3	1 8.6	—
205	„ 15	11 8.8	—	11 13.6	11 34.5	0.3	0 25.7	Thickening of line
208	„ 17	10 52.3	11 25.0	11 45.8	13 11.1	1.7	2 18.8	—
209	„ 22	19 18.2	19 24.2	19 39.8	20 17.5	1.1	0 59.3	—
211	„ 28	4 59.6	5 1.5	5 2.6	5 6.5	0.5	0 6.9	—
214	Sept. 19	18 36.3	18 44.1	18 58.1	19 26.6	0.55	0 50.3	—
218	„ 21	15 5.1	15 9.7	15 12.6	15 36.2	1.5	0 31.1	—
219	„ 24	8 14.7	—	9 46.7	10 3.0	0.2	1 48.3	Thickening of line.
222	„ 26	5 29.7	5 31.3	5 34.3	6 31.9	4.6	1 2.2	—
225	Oct. 7	19 21.6	—	19 37.8	20 39.9	0.2	1 18.5	Thickening of line.
225	Oct. 7	0 57.5	1 3.3	1 6.1	2 2.5	3.2	1 5.0	—
230	Nov. 2	5 34.0	5 50.7	5 52.0	7 9.5	1.1	1 35.5	—
231	„ 10	18 55.1	18 56.1	18 57.4	19 11.6	0.3	0 16.5	—
232	„ 11	21 29.1	21 30.7	21 33.4	21 59.7	0.4	0 30.6	—
235	„ 15	1 51.0	1 57.0	2 2.3	2 24.9	0.25	0 33.9	—
234	„ 18	13 14.6	—	13 15.6	13 18.9	0.4	0 4.3	Thickening of line.
235	Dec. 10	12 14.4	—	12 15.1	12 20.6	0.3	0 6.2	—
236	„ 12	13 17.0	13 43.3	13 46.9	14 17.6	0.5	1 0.6	—
237	„ 12	18 0.6	18 16.4	18 18.6	19 7.8	1.3	1 7.2	—
238	„ 18	11 10.5	11 15.0	11 16.5	11 39.5	0.65	0 29.0	—
240	„ 28	0 5.6	—	0 7.3	0 22.1	0.25	0 16.5	Thickening of line.
241	„ 28	4 39.9	4 42.9	4 45.0	10 56.6	0.35	6 17.7	—
242	„ 30	6 17.9	6 21.5	6 22.7	6 28.2	0.25	0 10.3	—
243	„ 31	1 50.8	—	1 52.5	1 56.1	0.25	0 5.3	Italian earth-quake.
244	„ 31	17 38.4	17 41.7	17 42.9	18 10.9	1.0	0 32.5	—

Mean displacement value 0^u.55.Register from the Magnetic Observatory, Christchurch, New Zealand.
Observer, HENRY F. SKEY, B.Sc.

Date	P.T.	B.	Max.	Amp.	E.	Duration	Remarks
1908							
Aug. 17	H. M. 10 50.8	H. M. 10 59.5	H. M. 11 28.4	MM. 5.5	H. M. 12 12.9	M. H. 2 43.8	—
Sept. 2	Indefinite	—	and 11 34.1	—	—	Indefinite	P.T. and A.T. obscured by night tremors.
„ 14	3 32.5	—	3 36.7	0.4	—	0 20.7	—
„ 21	6 55.7	—	7 11.8	0.9	—	1 45.5	—
„ 22	3 11.8	—	3 23.7	0.35	—	0 30.0	—
„ 26	5 27.4	5 32.0	5 34.1	4.9	5 41.8	1 13.4	—
Oct. 7	1 0.7	—	1 21.0	0.8	—	0 52.8	—
„ 13	5 31.0	—	—	—	—	1 41.8	Swellings.
Nov. 11	21 22.3	—	21 30.0	1.0	—	0 58.9	Preceded by night tremors
„ 15	2 0.8	—	—	—	—	0 21.2	Slight swelling.
„ 22	22 52.7	—	22 58.4	0.25	—	0 20.7	—
„ 27	0 38.0	—	0 41.1	0.3	—	0 24.3	—
„ 30	21 24.1	—	21 27.2	1.9	—	0 27.9	—
Dec. 1	3 5.4	—	—	—	—	0 38.3	Swellings.
„ 2	15 12.5	—	15 15.6	0.25	—	0 23.7	—
„ 7	2 0.3	—	2 6.9	0.15	—	0 31.1	—
„ 8	0 26.1	—	0 29.4	6.0	—	0 14.5	Severe shock felt.
„ 16	—	—	and 0 27.5	—	—	—	—
„ 16	—	—	6 7.7	0.4	—	—	In middle of continuous tremors.
„ 28	4 40.9	—	4 55.3	—	—	—	—
			5 0.5	0.6			
			5 7.8				
			5 20.9				
			5 30.0				
			6 7.2				
			6 13.4				
			6 17.1				
			6 20.2				
			6 24.3				
						2 21.7	Subsequent tremor at 7h.17.1m. Origin Italy.

B.E. = Beginning and end of vibrations not less than 2 mm.
A.T. = After-tremors.