had fallen 12 inches; 9th, it had fallen 4 inches; on the 22nd, 9 inches; 12th, 14 inches. It will continue falling till November, and sometimes well on in December; it will then remain stationary till a short time before the breaking up of the ice."

In answer to an enquiry we made some short time since of Mr. Geo. Thompson respecting the height of the Lakes this year, we were informed—

"That the water here on the 7th June, was 8 inches higher than in 1852, making it full 4 feet 2 inches higher than in 1848. It began to fall on the 13th of June; on the 19th it had fallen 2½ inches; on the 11th July 5 inches; on the 21st 6 inches; on the 29th 7½ inches; on the 4th August 9 inches; and to-day 10½ inches nearly;—it is, consequently, about 2½ inches below the years 1836 and 1852—at present. Its usual time for commencing to fall is from the 1st to the 10th July, whereas it had fallen 1 inch on the 13th June."

Observations made at the Queen's Wharf, Toronto, under the direction of CAPTAIN LEFROY, R.A.

1849.			1852.		
March 14th,	1	0	May 10th,	9	4½
" 24th,	1	1½	" 15th,	3	5½
" 26th,	1	3	" 18th,	3	7
" "	1	4	" 20th,	3	7½
April 4th,	1	6	" 29th,	3	8
" 9th,	1	8	June 3rd,	3	8
" 10th,	1	10	" 7th,	3	7
" 30th,	1	11	" 12th,	3	11
May 2nd,	1	11	" 14th,	4	0½
" 6th,	2	3	" 29th,	3	11
" 7th,	2	1	" 30th,	4	1 Highest.
" 14th,	1	11	July 5th,	3	11
" 21st,	2	2	" 13th,	4	0
" "	2	4	" 21st,	3	10
July 3rd,	2	5	Aug. 19th,	3	5
August 5th,	1	11	Sept. 6th,	3	2
" 15th,	1	8	" 30th,	2	10
Sept. 20th,	1	6	Nov. 18th,	2	6
Oct. 25th,	0	3 Lowest.	" 24th,	2	7
Nov. 31st,	1	9	Dec. 17th,	2	9 Wind.
Dec. 20th,	1	1			

These have always been taken on calm days, with one or two exceptions.

Mr. Dade recorded that, on July 1st, 1836, the water in perfect calm stood within 3 feet of the top of the Queen's Wharf. If so, it stood eight inches higher than it did on June 30, 1852, and about the same height as in June 1st, 1853.

Observations made at Gorrie's Wharf by Mr. G. A. STEWART.

Month of June.				Month of July.				Month of August.			
Day.	Hour.	Height of Water.	Direction of Wind.	Day.	Hour.	Height of Water.	Direction of Wind.	Day.	Hour.	Height of Water.	Direction of Wind.
1	9½ A.M.	4.73	E	2	3 P.M.	4.50	E	1	4 P.M.	3.99	E
2	2 P.M.	4.72	E	4	9½ A.M.	4.50	S W	2	12 noon.	4.00	
2	9 A.M.	4.68	E	5	10 A.M.	4.46	S W	3	5 P.M.	4.00	E
3	11½ P.M.	4.63	E	6	9½ A.M.	4.37	S W	5	12 noon.	3.95	
3	9½ A.M.	4.68	S W	7	12 noon.	4.10	S	7	4 P.M.	3.96	
4	10 A.M.	4.61	S E	16	12 noon.	4.15	S	8	4 P.M.	3.93	
6	9½ A.M.	4.68	S E	18	11 A.M.	4.25	S	10	4 P.M.	3.90	
7	9½ A.M.	4.60	W	20	12½ P.M.	4.17	W	12	12 noon.	3.86	
11	9½ A.M.	4.66	E	25	9 A.M.	4.13	S W	15	12 noon.	3.85	S E
16	11 A.M.	4.70	Calm.	27	12 noon.	4.05	S	16	12 noon.	3.81	S E
17	10½ A.M.	4.62	S W	30	11 A.M.	4.00	S E	18	11 A.M.	3.80	
20	9½ A.M.	4.59	S W					20	4 P.M.	3.82	
23	9½ A.M.	4.60	S W					23	10 A.M.	3.60	
24	12 noon.	4.55	W					25	9 A.M.	3.60	
25	9½ A.M.	4.43	N W					27	12 noon.	3.60	
28	9½ A.M.	4.50	E					29	12 noon.	3.40	
30	9 A.M.	4.54	S W					31	22 P.M.	3.40	

These observations are taken from a scale established at Gorrie's Wharf. The zero of which scale is left below the sill of the South West door of the Custom House, and corresponds with the scale on the Queen's Wharf, established by Capt. Lefroy.

We reserve for the next number of the Journal other data connected with the variations of the level of the lakes, as well as the discussion of the inferences which may be drawn from them. Meanwhile, we call *attention to the following* interesting paper, by Colonel Jackson, which has been widely circulated in manuscript, (in 1847,) but which has not yet, as far as we are aware, appeared in any accessible publication. It is addressed to the Royal Geographical Society.

On the Seiches of Lakes, by Col. J. R. Jackson, F. R. G. S., St. Petersburgh.

The Lake Leman, or of Geneva, has been long remarkable for a phenomenon known by the name of *Seiches*, and which has been considered peculiar to this lake: it consists of a kind of ebb and flow of the waters of the lake, in certain parts, without wind or any other apparent cause. While the phenomenon lasts, the waters are seen to rise and fall several times in the course of a few hours. These oscillations, more or less considerable, sometimes attain the height of 5 feet, though the general maximum seldom exceeds 2 feet: in the greater number of cases, the rise is confined to a few inches, the minimum being 0.

The *Seiches* of the Lake of Geneva, were observed in the beginning of the last century, by Fatio de Duilliers, who has given a description of them in a Memoire inserted in the 2nd volume of Spon's "Histoire de Geneve." Shortly after Professor Jallabert made mention of them in the "Memoires de l'Academie des Sciences." And more lately Mr. Serre in the "Journal des Savans;" Professor Bertraud, in an academical dissertation, not printed; as also de Saussure in the 1st Volume of his "Voyage aux Alps," have successively described this singular phenomenon.

Nothing, however, having been explained in a satisfactory manner, I wrote, some months since, to a learned Professor of Geneva, on the subject, proposing questions, the answers to which I hoped might throw some light on the nature of a fact which I apprehended to be by no means peculiar to the lake of Geneva, and I have reason to congratulate myself that the result of this step has been the publication of an able and detailed memoir on the subject by Professor Vaucher, which memoir had been written many years before, and which, in all probability, would never have been printed, but at the instigation of Professor Maurice, to whom I had written, and who, with that readiness which distinguishes the real lover of science, interested himself immediately in the subject.

From Professor Vaucher's memoir, a 4-to of 60 pages, written in French, so far back as the years 1803-4 it appears:—

1*stly*, That the Seiches of the Lake of Geneva are much more frequent than is generally imagined.

2*ndly*, That they happen at all seasons of the year and at all hours of the day; but that they are, generally speaking, most frequent in the Spring and in the Autumn.

3*rdly*, That the state of the atmosphere seems to have a decided influence, it being remarked, that in proportion as that state is less changeable, so are the Seiches less frequent, and *vice versa*. The Seiches have always been "*considerable*" (query as to frequency or magnitude?) when the atmosphere has been loaded with heavy clouds, or when the weather, in other respects severe, has threatened to be stormy, and when the barometer has sunk.

4*thly*, That although the seiches are more frequent in the Spring