

four hours after the barometer had passed its minimum: the storm lasted 14 hours 30 minutes. The rainfall was moderate. I have given you the readings on the 16th on account of the interesting coincidence between the veering completely round of the wind, and the gradual fall and rise of the barometer. On the 19th a greater storm occurred, but with a less marked connection between barogram and anemogram.

Stonyhurst, Whalley, Dec. 29

S. J. PERRY

Wind.				Wind.			
G.M.T.	Barom.	Direction.	Force.	G.M.T.	Barom.	Direction.	Force.
Dec. 16...2 a.m.	29.244	WSW	7	Dec. 18...5 p.m.	28.803	SW	17
3	.240	..	7	6	.770	..	22
4	.235	..	12	7	.740	SSW	22
5	.235	..	15	8	.721	..	24
6	.229	..	12	9	.706	SW	26
7	.226	SW	16	10	.683	..	26
8	.213	..	14	11	.684	..	27
9	.194	..	15	Mid.	.722	WSW	24
10	.184	..	14	Dec. 19...1 a.m.	28.759	W	20
11	.161	..	15	2	.783	SW	13
Noon	.126	..	15	3	.800	..	11
1 p.m.	.066	..	9	4	.808	..	12
2	.005	S	17	5	.809	..	13
3	28.946	..	17	6	.810	..	12
4	.860	..	16	7	.792	..	17
5	.784	..	15	8	.786	SSW	17
6	.690	SE	4	9	.769	..	23
7	.608	ENE	7	10	.743	..	23
8	.570	NE	10	11	.704	SW	18
9	.581	NNE	10	Noon	.681	..	16
10	.629	NW	13	1 p.m.	.676	WSW	26
11	.664	WNW	17	2	.694	..	24
Mid.	.713	W	11	3	.713	W	23
Dec. 17...1 a.m.	28.738	W	22	4	.740	WSW	20
2	.804	..	30	5	.740	..	23
3	.853	..	28	6	.748	SW	23
4	.894	..	25	7	.758	..	23
5	.930	WNW	28	8	.765	WSW	25
6	.980	..	26	9	.794	SW	25
7	29.014	W	26	10	.833	W	27
8	.064	..	31	11	.898	WNW	27
9	.090	..	32	Mid.	.937	W	24
10	.134	..	31	Dec. 20...1 a.m.	.960	..	23
11	.170	..	31	2	29.001	WSW	15
Noon	.212	..	30	3	.001	W	22
1 p.m.	.250	..	26	4	.021	WSW	21
2	.288	..	19	5	.041	..	16
3	.328	..	17	6	.040	..	16
4	.360	WSW	10	7	.044	..	14
5	.368	..	13	8	.063	..	16
6	.382	W	10	9	.079	..	14
7	.391	WSW	6	10	.088	WNW	14
8 a.m.	28.964	SSW	5	11	.088	WSW	15
9	.952	SW	7	Noon	.090	..	14
10	.938	WSW	10	1	.081	..	14
11	.912	SW	14	2	.081	..	15
Noon	.888	..	13	3	.089	..	10
1 p.m.	.872	..	16	4	.081	..	13
2	.867	..	16	5	.079	..	6
3	.836	..	15	6	.068	..	2
4	.822	..	16				

The Suez Canal

SINCE I last addressed you I have had an opportunity of inspecting the Suez Canal under the most favourable circumstances. After a careful personal examination, and having heard the various opinions of others differing in every conceivable respect, I think that, considering all things, M. de Lesseps and his staff have much cause to feel proud of the success they have attained. To return to my previous letter, I may say, without fear of any objections which may hereafter be raised, that not only do I think the suggestions I then made are sound and practical, but that to carry them out would be most economical to the shareholders of the Canal, while to the Egyptian Government it would add probably 25 per cent. to the land revenue, by reclaiming a vast extent of desert that only requires water to make it most productive.

From inquiries also into the land settlement question of Egypt, I believe that this project of raising the canal-levels by fresh water could be carried out without any complaint being raised by the cultivators, who do the earth work, and would be repaid by title-deed to the land to be reclaimed; for, after all, the work would not be great, simply widening the present sweet-water canal some 30 metres. By a set of locks just before entering Lake Ballah from the south, and a similar set of locks before entering the bitter lakes from the north, the surface level of the water in Lake Timsah could be held up 2½ metres. Thus much of the expensive deepening and widening of the canal would be saved, which is all the more important as it is in this division of the canal that rock has been found.

It may be said that the Nile could not supply sufficient water,

but with a weir or "anicut" across the Nile at Cairo, where stone is plentiful, not only could a supply of water be obtained, but I believe the whole system of irrigation in Egypt would be greatly improved.

So much for the interests of the shareholders and the people of Egypt, but what would the ship captains say at being detained by having to pass two sets of locks?

In reply to this objection I may say, that as the passage from the Timsah Lake takes seven or eight hours of daylight either way, half an hour's detention is of no consequence, for all sea-going ships must remain a night in Lake Timsah; so that as the ship would thus be some eighteen hours in fresh water, the marine animals and weeds would most probably all drop off the ship's bottom, and so the hour's loss of time by lockage would be more than compensated by the days saved on the voyage.

I have not time at present to speak of the deposits at Port Said, or the currents at the Suez end of the Canal, but will address you on these interesting questions on some future occasion after I arrive in India. In conclusion, I must add, that the Canal authorities have one and all been most civil and obliging, showing and explaining everything.

T. LOGIN, C.E.
Late of the Ganges Canal

P. & O. Co.'s Ship *Nubia*,
Suez, November 29, 1869

NOTES

PROFESSOR HELMHOLTZ, of Heidelberg, has been elected a corresponding member of the Physical Section of the Paris Academy of Sciences in the room of M. Marianini. Votes:—Helmholtz 37, Kirchhoff 3, Sir W. Thomson 2, Ångström 1, Mayer 1. At the same meeting the Secret Committee appointed to nominate candidates for the place of corresponding member vacant owing to the death of M. Matteucci, announced the following list:—In the first rank,—M. Mayer of Heilbronn. In the second rank,—M. Ångström of Upsala, M. Bilet of Dijon, M. Dove of Berlin, Mr. Grove of London, Mr. Henry of Philadelphia, M. Jacobi of St. Petersburg, Mr. Joule of Manchester, M. Kirchhoff of Heidelberg, M. Riess of Berlin, Mr. Stokes of Cambridge, Sir W. Thomson of Glasgow, Mr. Tyndall of London, M. Volpicelli of Rome. The election takes place at the next meeting of the Academy.

HER MAJESTY has been pleased to signify her desire that the Historical and Archaeological Association of Ireland be henceforth called the Royal Historical and Archaeological Association of Ireland, and that the members of the Association be styled "Fellows."

AT the meeting of the Paris Academy held on the 29th ult., the death of M. Erdmann, the Swedish geologist, was announced. M. Erdmann was chairman of the commission for the Geological Survey of Sweden.

MR JAMES NICOL and Dr. G. Dickie, the Professors of Natural History and Botany in the University of Aberdeen, have addressed a joint letter to the *Aberdeen Free Press*, defending the science-teaching of the university from some remarks made by Professor Geddes in his pamphlet on Classical Education in the North of Scotland. They show that the students have given the greater part of their school life to the classics; that the time allowed for scientific work at the university is only one-sixth of that assigned to classical studies; that the 3,000*l.* a-year given as bursaries were until recently confined solely (and still are chiefly) for merit in classics; and that a considerable sum is devoted to Classical prizes, whilst the highest honours in Natural Science have been rewarded for the last two years with the magnificent sum of 10*l.* Notwithstanding these disadvantages, and in spite of the deliberate endeavour of the commissioners appointed "for the advancement of religion and learning in the universities" to suppress the teaching of Natural Science in the university, Professors Nicol and Dickie are able to point with justifiable pride to the list of honours in Natural Science, a list