NOTES.

THE PLANTE AND FAURE BATTERIES.—Speaking of the relative merits of the two batteries, M. Faure says in a letter to "*The Electrician*," M. Planté has the merit of being clear in the exposition of his ideas and researches, and in his remarkable work, "Recherches sur l'Electricité," he tells us exactly how his battery is made, how it is "formed," and what it does when so made. Referring to this last point we read that a battery can furnish a constant current through fifty metres of copper wire one millimetre in diameter, say one ohm during one hour. Now, if we take the electromotive force at 2.20 volts we find for the work so given out $\frac{2.20^2}{1 \times 9.81} = .5$ kilogrammetres per second during one hour, or an absolute total of 1,800 kilogrammetres. And for the sake of comparison we may also say that the above battery would furnish a current of 2.2 webers for an hour. As Planté batteries may not be in the hands of everyone of your readers, and as I was fortunate enough to obtain an assorted supply before the scarcity set in, I will give a few figures which are the results of my experiments, and somewhat corroborate the above statements. The best cell that I could procure, and which had been nearly two years in formation at the makers in Paris, gave me, when properly charged, a current of twenty webers during five minutes. The two lead electrodes are each one millimetre in thickness and 65 millimetres long, by 20 centimetres deep. The amount of suboxide of lead which had been formed upon the positive electrode I found by drying and weighing to be 75 grammes. I will at once here make a comparison. In some of my round cells, having electrodes of the same size as the above, that is 65 x 20, I have placed upon the positive electrode 2,000 grammes of red lead (a similar quantity being also placed upon the *negative electrode*). The current which this arrangement furnished me was about equal to 20 webers during two hours and a half, or nearly proportionate to that furnished by the Planté battery, taking into account the relation $\frac{2000}{75}$ of lead oxide brought into action in both batteries. The least perfect of my Planté cells, which had been "formed" during three months only, gave me only about one-fourth of the above work. I state simply facts, but it is said that the above mentioned perfect Planté battery might have been made in three months instead of two years. Let it be so, and let us suppose that the Faure battery has no greater capacity of storage than three or four times that of some of the old Planté batteries in existence, still I beg to say that it exists, and is perfectly well covered by valid patents, and as such will be of great value to the electric industry. Upwards of twenty-five tons of Faure batteries have been made, and experiments on a commensurate scale carried out during a year of silence, and from trustworthy experimental work I have acquired the certitude that there are great things in it.

TESTS FOR COLOR-BLINDNESS.

A resolution received from the Ophthalmological Section, on the subject of the tests most applicable to be employed in working and observing signals by land or sea, where the lives of others are involved, was similarly carried unanimously, and the recommendations of the section ordered to be forwarded by the Hon. Secretary-General as the opinion of the Congress to the Foreign Secretary, the first Lord of the Admiralty, and the President of the Board of Trade.

(Medical Congress, London, 1881.)

METEOROLOGICAL REPORT FOR NEW YORK CITY FOR THE WEEK ENDING SEPT. 17, 1881.

Latitude 40° 45′ 58″ N.; Longitude 73° 57′ 58″ W.; height of instruments above the ground, 53 feet; above the sea, 97 feet; by self-recording instruments.

	BAROMETER.					THERMOMETERS.									
	MEAN FOR THE DAY.	MAXIMUM.		MINIMUM.		MEAN.	MAXIMUM.				MINIMUM.				MAXI'M
SEPTEMBER.	Reduced to Freezing.	Reduced to Freezing.	Time.	Reduced to Freezing.	Time.	Dry Bulb.	Dry Bulb.	Time.	Wet Bulb.	Time.	Dry Bulb.	Time.	Wet Bulb.	Time.	In Sun.
Sunday, 11	29.891	29.912	9 a. m.	29.848	5 p. m.	71.0	78	4 p. m.	71	6 p. m.	64	7 a. m.	63	7 a. m.	131.
Monday, 12	29.901	29.958	12 p. m.	29.838	4 a. m.	67.6	77	4 p. m.	63	4 p. m.	61	6 a. m.	60	6 a. m.	141.
Tuesday, 13	29.979	30.032	12 p. m.	29.938	4 p. m.	70.3	79	3 p. m.	69	5 p. m.	58	6 a. m.	57	6 a. m.	134.
Wednesday, 14	30.113	30.154	12 p. m.	30.032	0 a. m.	66.3	76	3 p. m.	67	5 p. m.	58	6 a. m.	57	6 a. m.	132.
Thursday, 15	30.179	30.198	9 a. m.	30.144	3 p. m.	68.3	74	2 p. m.	69	2 p. m.	63	4 a. m.	60	4 a. m.	130.
Friday, 16	30.228	30.288	10 p. m.	30.162	4 a. m.	65.3	70	2 p. m.	65	2 p. m.	61	12 p. m.	60	12 p. m.	90.
Saturday, 17	30.275	30.292	9 a. m.	30.228	12 p. m.	63.3	70	4 p. m.	64	5 p. m.	56	12 p. m.	56	12 p. m.	131.

			Dry.	Wet.
Mean for the week	30.080 inches.	Mean for the week	67.4 degrees	62.9 degrees.
Maximum for the week at 9 a. m., Sept. 17th	30.292 "	Maximum for the week, at 3 pm. 13th	79. "	at 6 pm 11th, 71. "
Minimum " at 4 a. m., Sept. 12th	29.838 "	Minimum " " 12 pm. 17th	56. "	at 12 pm 17th, 56. "
Range	.454 "	Range " "	23. "	15. "

	WIND.						HYGROMETER.						CLOUDS.			RAIN AND SNOW.				OZONE.
	DIRECTION.			VELOCITY IN MILES.	FORCE IN LBS. PER SQR. FEET.		FORCE OF VAPOR.			RELATIVE HUMIDITY.			CLEAR, 0 OVERCAST, 10			DEPTH OF RAIN AND SNOW IN INCHES.				
SEPTEMBER	7 a. m.	2 p. m.	9 p. m.	Distance for the Day.	Max.	Time.	7 a. m.	2 p. m.	9 p. m.	7 a. m.	2 p. m.	9 p. m.	7 a. m.	2 p. m.	9 p. m.	Time of Beginning.	Time of Ending.	Duration. h. m.	Amount of water	
Sunday, 11	n. n. e.	w. n.w.	s.	129	4½	0.30 am	.562	.614	.693	94	63	85	10	4 cu.	10	10½ pm	12 pm	1.30	.04	8
Monday, 12	n. n. e.	w. n.w.	n.	111	1½	2.30 pm	.505	.516	.457	94	83	69	10	1 cir.	0	0 am	5.30 am	5.30	.62	1
Tuesd y, 13	n. n. w.	s. s. w	n. e.	82	1½	11.20 pm	.416	.443	.586	72	46	80	0	3 cir. cu.	0	-----	-----	-----	--	0
Wednesday, 14	n. e.	e.	e.	147	1¼	3.50 pm	.426	.497	.549	52	59	89	0	1 cir. s	0	-----	-----	-----	--	7
Thursday, 15	e.	s. e.	e.	252	8	2.30 pm	.516	.641	.569	83	76	89	1 cir.	2 cir. cu.	10	-----	-----	-----	--	6
Friday, 16	e.	e. s. e.	e.	249	5½	1.30 pm	.542	.550	.510	94	75	88	10	9 cu.	9 cu.	0 am 11 am	8 am 0.15pm	8.00 1.15	.12 .01	5
Saturday, 17	n. n. e.	s. e.	e. s. e.	153	1½	0.00 am	.473	.495	.487	88	70	94	7 cu.	8 cu.	9 cu.	-----	-----	-----	--	0

Distance traveled during the week	1123 miles.	Total amount of water for the week	.79 inch.
Maximum force	8 lbs.	Duration of rain	16 hours, 15 minutes.

DANIEL DRAPER, Ph. D.

Director Meteorological Observatory of the Department of Public Parks, New York.