ATOMIC PHYLLOTAXY.

Gerber (*Chemical News*, XLIII, 242–43), says that "no simple relation exists among" his divisors, therefore they "have no value in themselves." There is, however, a relation which he failed to discover, for they are phyllotastic, as will be seen by the following comparison:

Gerber's Divisors.		Phyllotastic Divisors.	
H	.9997	$H = 0 \div 2^4$	.998
D_1	.769	$\frac{5}{13} \times 2\,H$	.768
D_2	1.995	$2\,H$	1.996
D_3	1.559	$\frac{5}{2} \times \frac{5}{8}\,H$	1.559
D_4	1.245	$\frac{5}{2} \times \frac{1}{2}\,H$	1.247

PLINY EARLE CHASE.

HAVERFORD COLLEGE, *Nov.* 10, 1881.

ON September 13, 1881, a red star was noticed at the Harvard Observatory in R. A. 16th, 31. 5 m, Dec. + 72° 32′. From the similarity of its spectrum to that of several known variable stars, it was presumed to be variable; and the suspicion was confirmed both by its absence from the catalogues, and by subsequent observation, which showed that its brightness was increasing. Information respecting it was sent by telegraph to Dr. Copeland, at Strassburg, by means of the telegraphic cipher devised by Messrs. Chandler and Ritchie.

THE Museum of Comparative Zoölogy, of Harvard College, has received a collection of ninety species of fossil plants from Cannelton, Pa. The species have been identified by Mr. Lesquereux, who pronounces the series one of the best made by Mr. Mansfield from that locality.

THE annual report to the government of India on the progress of the cinchona cultivation and its practical results is a document not only of great importance, but also of considerable interest. The success which was chronicled in previous reports has been well maintained under the superintendence of Dr. King, who has the responsible charge of the cinchona cultivation in Bengal. It will be remembered that the object to which efforts hitherto have been chiefly directed is the manufacture of a cheap febrifuge from the bark of the cinchona succirubra. The plantations of this tree which are now in existence are so extensive as to suffice for present and probable requirements, so far as the febrifuge is concerned. They contain more than four millions of trees, and from them 267,335 lbs. of red bark were obtained during the year. The yield per acre (1510 lbs.) is not, however, considered to be very good; 9296 lbs. of the febrifuge were made during the year, and 8653 lbs. were consumed, 5500 lbs. being used in the Government services and 3150 lbs. sold to the public. The demand for the febrifuge steadily increases, a satisfactory proof of its value, and the total amount manufactured from the commencement to March 31, 1881, is 36,639 lbs.

Financially the enterprise, initiated with such pains by Mr. Markham, must be regarded as a complete success. The actual profit on the year's working was eight per cent. on the capital of the plantation. This does not, however, represent the whole gain of the year. The price of quinine was very high, and the cost of the 5550 lbs., which would have been used by the Government had the febrifuge not been available, would not have been less than £48,000, while the cost of the febrifuge was only a sixth of the amount, representing a saving of at least £40,000.

METEOROLOGICAL REPORT FOR NEW YORK CITY FOR THE WEEK ENDING NOV. 26, 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.

NOVEMBER.	BAROMETER.						THERMOMETERS.										MAXI'M
	MEAN FOR THE DAY.	MAXIMUM.		MINIMUM.		MEAN.		MAXIMUM.				MINIMUM.				
	Reduced to Freezing.	Reduced to Freezing.	Time.	Reduced to Freezing.	Time.	Dry Bulb.	Wet Bulb.	Dry Bulb.	Time.	Wet Bulb.	Time.	Dry Bulb.	Time.	Wet Bulb.	Time.	In Sun
Sunday, 20..	30.269	30.386	9 a. m.	29.798	0 a. m.	37.0	36.0	45	0 a. m.	43	0 a. m.	35	12 p. m.	35	12 p. m.	100.
Monday, 21..	30.137	30.378	0 a. m.	29.988	12 p. m.	40.0	39.0	43	3 p. m.	42	3 p. m.	35	0 a. m.	35	0 a. m.	84.
Tuesday, 22..	30.185	30.296	8 p. m.	29.982	2 a. m.	34.3	33.3	41	0 a. m.	40	0 a. m.	26	12 p. m.	26	12 p. m.	90.
Wednesday, 23 .	29.941	30.280	0 a. m.	29.548	12 p. m.	30.6	30.6	35	9 p. m.	35	9 p. m.	25	3 a. m.	25	3 a. m.	45.
Thursday, 24..	29.573	29.822	12 p. m.	29.496	4 a. m.	32.0	32.0	38	12 m.	37	12 m.	25	12 p. m.	25	12 p. m.	80.
Friday, 25..	30.145	30.200	9 p. m.	29.822	0 a. m.	27.3	26.7	30	3 p. m.	30	3 p. m.	23	7 a. m.	23	7 a. m.	92.
Saturday, 26..	30.036	30.196	0 a. m.	30.000	2 p. m.	38.3	33.7	43	3 p. m.	37	4 p. m.	29	0 a. m.	28	0 a. m.	97.

Mean for the week -- 30.041 inches.
Maximum for the week at 9 a. m., Nov. 20th -------------- 30.386 "
Minimum " at 4 a. m., Nov. 24th ---------------- 29.496 "
    Range -- .890 "

Mean for the week -------------- 34.2 degrees (Dry.) ------------- 33.0 degrees. (Wet.)
Maximum for the week, at 0 am. 20th 45. " at 0 am 20th, 43. "
Minimum " " 7 am. 25th 23. " at 7 am 25th, 23. "
    Range " " ---- ---- 22. " -------------- 20. "

NOVEMBER.	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.				0 / 10
	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, 20.	n. w.	n. w.	n. e.	309	20½ 1.00 am	.191	.203	.204	90	82	100	6 cir. cu.	6 cir. cu.	0	-----	----	-----	--	0
Monday, 21.	w.	w. s. w.	s. w.	135	2¾ 1.15 pm	.212	.231	.235	100	83	91	7 cir. cu.	8 cu.	10	-----	----	-----	--	10
Tuesday, 22.	n. w.	n. n. w.	e.	244	6¼ 11 15 am	.216	.170	.153	90	80	100	3 cir.	3 cir. s.	0	0 am	1 am	1.00	.01	5
Wednesday, 23.	n. e.	n. n. e.	n. e.	183	3 9.00 pm	.141	.174	.204	100	100	100	8 cu.	10	10	12 m	12 pm	12.00	.59	10
Thursday, 24.	n. n. w.	n. n. w.	w. n. w.	275	13¼ 3.10 pm	.188	.153	.204	100	100	100	10	8 cu.	0	0 am	5 am	5.00	.07	10
Friday, 25.	w. n. w.	w.	w. s. w.	317	6 0.00 am	.123	.130	.160	100	78	100	0	1 cir. cu.	0	-----	-----	-----	--	7
Saturday, 26.	s. w.	w. s. w.	w. s. w.	317	7½ 9.15 pm	.144	.113	.147	79	42	56	2 cir.	4cir.cu.s	0	-----	-----	-----	--	0

Distance traveled during the week ---------------------- 1,780 miles.
Maximum force --------------------------------------- 20½ lbs.
   * Wednesday, 23d, slight.

Total amount of water for the week -------------------------- 0.67 inch.
Duration of rain -------------------------------- 18 hours, 00 minutes.

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