THE HOROSCOPE,

A Monthly Magazine of Science and Literature.

MAY, 1841.

REMARKABLE NATIVITIES.

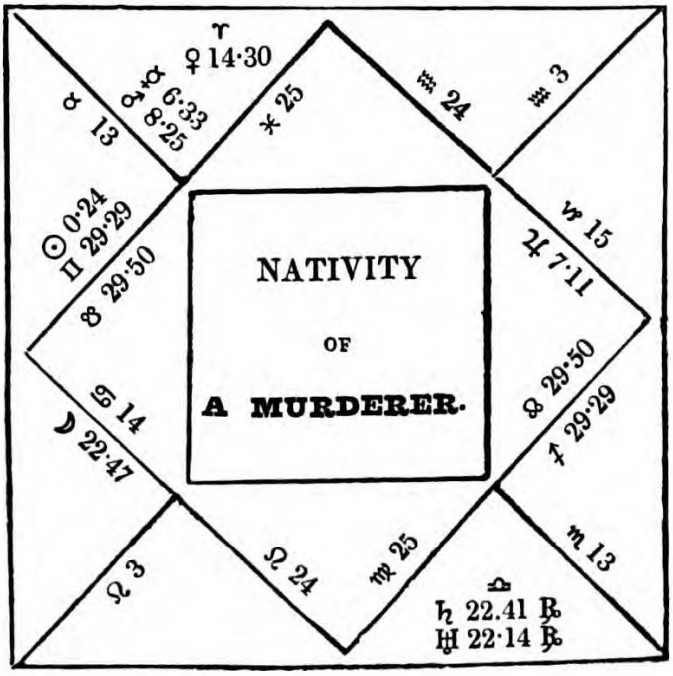
THERE is, perhaps, no better method of satisfying the sincere searcher after truth of the reality of the doctrines of Astrology, than to present him with nativities of a striking character, and show how they agree with the principles of the science. As facts do more than mere arguments, we shall at once proceed to present the reader with a few such cases, which have occurred in our day, and which demonstrate that the philosophers of modern days, who deny Astrology, are opposed to facts, and are dreaming of a knowledge of nature, wrapt in the mantle of delusion, and dozing away their existence without ever catching a gleam of that light which the sages of Chaldea discovered, and which is expanded through the whole universe, and merely awaits the research of such as are resolved to think, and seek, and be informed of the truth, as she stands in naked beauty, and free from the fogs and mists of ignorance and prejudice.

NATUS.

JOHN WILLIAM HOLLOWAY.

22nd May, 1806, 5h. 49m., A.M., at Brighton.

326° 24′



LATITUDES.

♅	0° 36′	N.
♄	2 44	N.
♃	0 13	N.
♂	0 30	S.
♀	1 33	S.
☿	3 28	S.
☽	2 9	S.

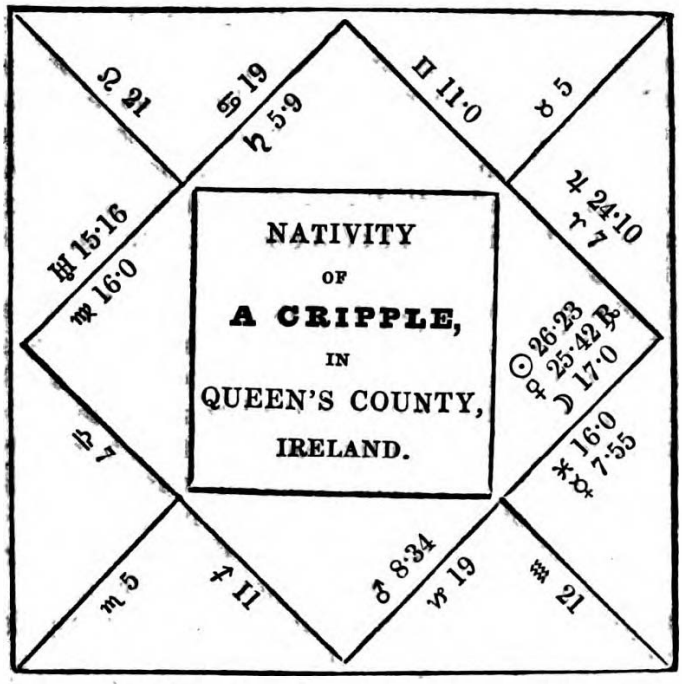
This unfortunate being murdered his wife, 14th July, 1831. The time is taken from the published accounts of his life. When a young man, he was seriously inclined, and became a Sabbath-school teacher, and at times a local preacher. This is shown by the trine of Jupiter and Mercury. He, however, formed an unfortunate connexion with a woman, and as she had a child, the parish officers partly persuaded and partly compelled him to marry her. This miserable creature was only four feet three inches high, had a very large head, and her hands turned outwards. She was a strange-looking object, and of weak intellect. The marriage took place on the 20th of November, 1826. He afterwards formed an attachment to another, and that he might obtain her, strangled his unhappy wife. He then cut the body in pieces, to conceal it. His trial took place at 8h. 30m. A.M., 14th December, 1831, and he was executed immediately afterwards.

The position of the Moon in close square to Saturn and Herschel in the house of illicit love is very striking; and it will be seen that the Moon has also the mundane square of Mars and Mercury, and no aspect to Jupiter. The evil position of Venus, also, in square to Jupiter and the Moon, and in opposition to Saturn and Herschel, and semisquare to the Sun, and semisquare to the midheaven, could not be exceeded. Mercury in conjunction with Mars in *Taurus* is always evil, showing much dogged violence of character, and one capable of great cruelty. This is made worse by the square of the Moon. When Jupiter is in Capricorn, his good aspects can do but little good, and in this case could not overcome the malefic influence upon Mercury and the Moon, the mental rulers. The Sun is in semisquare to Venus and the Moon, and sesquisquare to the two evil stars in the 5th house; and as he rules the 4th house, he shows the violent and disgraceful end of the native. It will be hard for sceptics to deny the numerous agreements in this natus with the rules of astral science.

The next nativity (see Nativity, No. I.) was a case of inverted feet. The rule given by Ptolemy is, "should the malefics be in angles, and the luminaries, either together or in opposition, be brought up to them, or if the malefics be brought up to the luminaries, especially when the Moon may be in her nodes or in her bends, &c., the body will then be afflicted with excrescences, *distortions*, *lameness*, or paralysis."—Book III. chapter 17. Now, here we find the malefics strong in angles, the luminaries in mundane square to them, and the Moon in her "bend," that is, her greatest latitude. It will be seen, also, that the Moon is afflicted in Pisces, the sign ruling the feet: Mercury also in that sign and in the 6th house, or house of disease. The native was active and intelligent. The time we obtained from himself.

NATIVITY OF A CRIPPLE (No. I.),

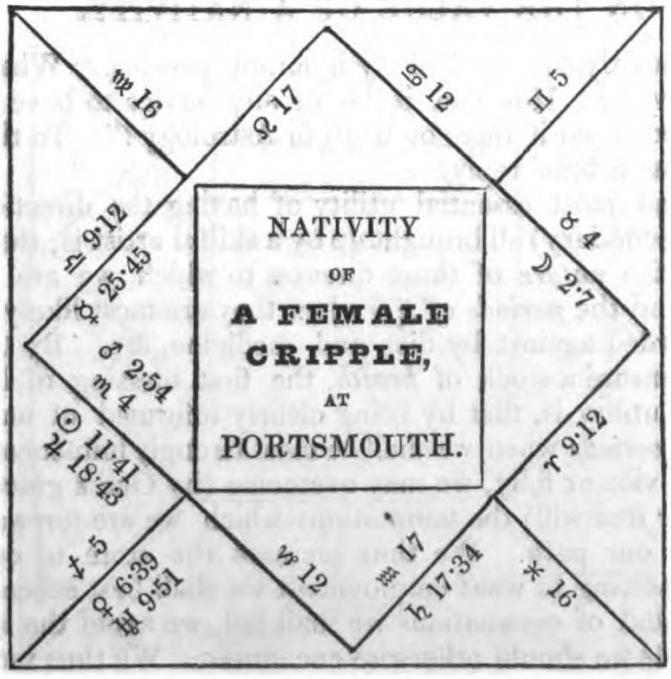
At 5h. P.M., 16th March, 1798, in Lat. 53° N., Long. 7° 15′ W.
AR 69° 29′.



LATITUDES.—♅ 0° 49′ N. ♀ 8 28 N. ♄ 0 29 S. ☿ 2 14 S.
♃ 1 3 S. ☽ 4 55 S. ♂ 0 22 S.

NATIVITY OF A CRIPPLE (No. II.),

At Portsmouth, 6h. A.M., 4th November, 1816
AR 103° 15′.



LATITUDES.—♅ 0° 1′ N. ♀ 0 44 S. ♄ 1 19 S ☿ 1 40 N.
♃ 0 50 N. ☽ 2 56 S. ♂ 0 25 N.

She has no use of her *legs*, her feet being turned inward. Here we see the malefic Mars rising into an angle, and the Moon, in opposition to the Sun, in close opposition to that planet. The malefic Saturn in the sign ruling the *legs* placed in the descending part of the heavens, and Pisces, ruling the *feet*, placed on the house of diseases. Ptolemy mentions Taurus as an obnoxious sign, which, when the Moon is therein, under the circumstances of the rule, assists to produce these diseases. The Moon is here in Taurus. And it will also be observed that Saturn afflicts both Sun and Moon by a close mundane square. This female being born under Libra, and with Venus in sextile to the degree ascending, is very good looking, and of a good understanding, as shown by Mercury rising, &c.

There is one point in this nativity to which we would draw attention. Ptolemy says, that "Mercury also will act with them (the malefics), and contribute to the increase of the evil." And he adds, afterwards, "If the planets happen to be posited in the latter degrees of the signs containing them, the *extremities* of the body will then be chiefly affected by the disease or hurt, which will arise from humours or accidents, producing leprosy, gout, or other infirmities, in the hands or feet:" Now, the Moon has here just separated from opposition of Mercury, who is in the "latter degrees" of Libra, and conjoined with Mars. Wherefore the rule applies exactly, for not only are the legs crippled by Saturn in Aquarius, but the feet are turned inward. And we may here observe, that malefic action in the sign *Scorpio* gives (according to our observation) a tendency to distortion in the legs and feet, more especially in females. Scorpio persons have frequently ill-formed, club feet, &c., as Lord Byron.

ON THE VALUE OF A NATIVITY.

It has frequently been asked by ignorant persons, "What value is there in a nativity? How can it be of any service to have one's nativity calculated, even if there be truth in Astrology?" To these questions we propose a brief reply.

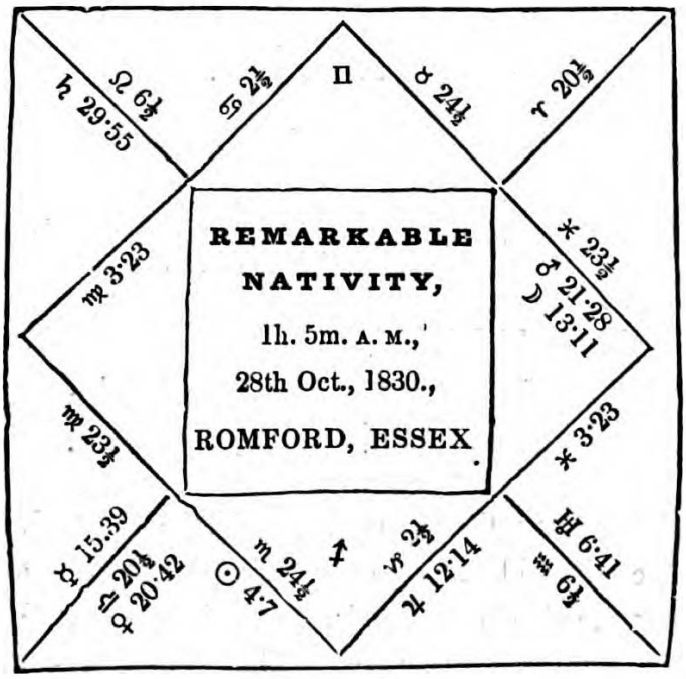
The first and most essential utility of having the directions (both primary and secondary) all brought up by a skilful artist is, that we may thereby learn the *nature* of those diseases to which we are liable by constitution, and the *periods of life* when they are most likely to attack us, if not guarded against by diet and medicine, &c. By this means we obviously ensure a stock of *health*, the first blessing of life. The next point of utility is, that by being clearly informed of our *dispositions*, and the *periods* when we shall be most strongly influenced towards any particular vice or folly, we may overcome (by God's grace and the exercise of our free will) the temptations which we are forewarned will be thrown in our path. We thus increase the store of our *virtue*. Thirdly, by knowing in what employment we shall best succeed in life, and in what kind of occupations we shall fail, we avoid the losses and disappointments we should otherwise encounter. We thus increase our *wealth*. Fourthly, by learning under what influence it is advisable to engage in matrimony, and when to refrain (for "to every thing there is

a SEASON, and a TIME to every purpose under the heaven") we may avoid the miseries of an ill-omened marriage, and ensure the comforts of a happy one. We do thereby assuredly add to our *happiness*. Lastly, we may, in the same manner, by acting in concert with the influences under which we are born, avoid many of the ills and disasters of life: and on some occasions may escape both grievous accidents and illnesses, and even death itself. But we may not only act negatively, but positviely, towards our own increase of good in this life; for we may pursue speculations of various kinds, in commerce, in science, in love—briefly, in every thing we undertake, with a moral certainty of success (unless our nativity be wholly unfortunate), and thereby prove to ourselves the true value of a nativity, which enables us to seize upon the good, and eschew the evil of existence.

There is no *fatality*, except to fools. "A prudent man *foreseeth* the evil, and hideth himself; but the simple pass on, and are punished." There is no voice by which "a prudent man" can be warned of many of the impending evils of life but "the voice of the stars;" and there are none but fools who will allow themselves to be deprived of their light by the veil of ignorance. It is sadly true, however, that this genus composes a wide-spread section of society. We have also high and holy authority to say, that "Folly is set in great dignity."

PRIZE NATIVITY, No. I.

AR 52° 7′.



LATITUDES.

♅	0° 40′ S.	♀	1° 25′ N.
♄	1 16 N.	☿	1 57 N.
♃	0 18 S.	☽	0 23 S.
♂	2 25 S.		

Required to know what remarkable events have happened to the child's person, and whether living or dead; if living, in what condition? and if dead, at what period, and in what manner?

N.B. A prize of a handsomely-bound copy of the "Grammar of Astrology," value 10s. 6d.—that is, book 5s. 6d., binding 5s.—will be presented to the artist who may forward, before the 1st of June, 1841, the most correct replies to these queries. The result will be published. The directions for the events must be worked out in full, both primary and secondary.

PRIZE NATIVITY, No. II.

AR 351° 56′.

LATITUDES.

♅	0° 35′ S.	♀	0° 17′ S.
♄	0 2 N.	☿	0 0
♃	1 13 N.	☽	4 56 N.
♂	4 47 S.		

Required to know the same as in the Nativity, No. I.; the terms the same. The prize will be a copy of "Zadkiel's edition of Lilly," handsomely bound, value 15s—that is, the book 10s. 6d., binding 4s. 6d.

N.B. In both of these cases similar events have occurred to the natives.

THE REALITY OF ASTRAL INFLUENCES VERIFIED BY THE FULFILMENT OF PREDICTIONS DURING TEN YEARS.

(Continued from page 139.)

PREDICTIONS.	EVENTS.
"About the middle of next December will happen *a destructive earthquake;* the most evil influence appears to be on the 14th and 20th days. The parts of the world most exposed thereto are the kingdoms of Spain and Arabia, and the southern parts of North America."—*Horoscope*, 6th September, 1834. N.B. This influence occurred all through the winter, and extended all over the western coast of South America.	"Robinson Crusoe's Island.—In the island of Juan Fernandez, an earthquake had destroyed the town which was in the valley, and on the first alarm the inhabitants fled to the mountains. The sea at first receded from the island, then returned, overflowed the town, and swept away the houses, leaving on the site an immense mass of black mud."—*Chelt. Journal*, 13th July, 1835. Earthquake in Chili.—"A most dreadful earthquake was experienced on the evening of Feb. 2nd, in the southern provinces of Conception, which has levelled seven large towns, and many villages, leaving upwards of 200,000 inhabitants without a shelter, in the utmost distress and consternation. It is the most complete ruin this country has suffered from the same cause for centuries, the loss of both lives and property being immense. It was most violent in the town of Conception."—*Ibid*, 28th July, 1835.
"Near the 5th of August, a great earthquake may be feared, either in Sardinia or Sicily."—*Eclipse of Sun*, 27th May, 1835.	A great earthquake did occur at Suza, in Africa, within 100 miles of the part named, on the 5th of August and two following days. It threw down many houses, killed a number of the inhabitants, and extended a long way into the interior.
"In China, and probably in India, some very direful earthquakes will occur in September" (1835). "An extensive earthquake *about the 12th of October.*	"On the 16th September there was an earthquake at Patylau, the shocks of which were more violent, and of longer duration, than on the 26th of August."—*Chelt. Chronicle*, 3d March, 1836.

PREDICTIONS.	EVENTS.
"This phenomenon (eclipse of the Sun, 20th November, 1835) will produce some very extensive earthquakes. They will happen chiefly in Africa. * * The most violent will be in India, Madagascar, and *near the Cape of Good Hope*, and even as early as the 26th of November."	"Castiglione was destroyed by an earthquake, and nearly 100 inhabitants buried under the ruins, in *the middle of the night of the 12th of October*."—*Ibid*, Feb. 11, 1836.
	"On the 1st of November, an earthquake took place in the islands of Malacca and Amboyna. 58 persons perished, and 66 were wounded. The Chinese camp was inundated."—*Antwerp pap.*, Apr., 1836.
"Some fearful phenomena will attend the return of the comet to the earth about November."—*Almanac for* 1835.	"A smart shock of an earthquake was felt *at the Cape of Good Hope* and its neighbourhood, on the 25th November, 1835."—*Globe*, 25th January, 1836.
	An earthquake in India also, 2nd January, 1836.
"The public health will be good during the ensuing quarter."—June, 1836, page 38.	A report of the medical officers, Free Hospital, Greville-street, 5th July, states that the metropolis was "quite free from any epidemic, and more generally healthy than for many years past."—*Sun*, 7th July, 1836.
"The last week in June, and the 6th and 21st July, 1836, were named as periods when dreadful earthquakes would occur; and the coasts and islands of the Mediterranean sea were pointed out as the most liable to be visited by these phenomena."—Page 38.	"An earthquake was felt at Omoa on the 22nd and 23d of June, occasioned by the eruption of the Congrehoy. The sound was like distant cannon, continued eighteen hours, and was heard at Belize, Honduras, 200 miles distant."—*Manches. paper*, 6th August, 1836.
	"An extensive earthquake in Italy recently."—*Morning Post*, 19th June, 1836.
"There are tokens of very extensive earthquakes about the 8th of June and 3d of July."—1836, p. 36.	"Three most violent shocks of earthquakes were felt at Bassano, *on the 20th of July:* several houses were thrown down."—*Atlas*, 14th August. This was near Venice. And in Calabria, on the 24th of May, near 200 persons were killed by an earthquake.—*Vide* London papers, 5th June, 1836.
GREAT ECLIPSE, 15TH MAY, 1836.—"This eclipse first begins	"EARTHQUAKE IN PALESTINE.—This horrible catastrophe took

PREDICTIONS.

to operate powerfully about eight or nine months after it takes place." P. 37, *Almanac* for 1836.

"*Some very dreadful earthquakes* will be recorded. The parts of the world most liable to these phenomena at the above-named periods will be the coasts and islands of the Mediterranean Sea, especially ASIA MINOR, SMYRNA, THE ARCHIPELAGO, AND ISLAND OF CYPRUS. * * The dominions of King Otho are threatened, and the coast of Africa; but I particularly expect shocks will be felt *about the vicinity of Smyrna, and extend along the coast of Syria.*"—*Ibid.*

EVENTS.

place on the 1st of January. Late in the afternoon, though before sunset, a most violent shock of earthquake *destroyed the whole of Saffet, Tiberias*, and many of the surrounding villages."—*Globe*, 1st March, 1837.

"EARTHQUAKES.—Southern Syria has been ravaged by these dreadful phenomena. 15,000 persons, at least, are stated to have perished; and *Tiberias, Napluz, St. Jean d'Acre, and all the country*, had suffered. On the 22nd ult. a severe shock was felt at Constantinople; and on the night of the 23rd, Switzerland, Germany, Italy, and the eastern parts of France, were affected."—*Lit. Gazette*, 25th March, 1837.

"At Damascus, four minarets and several houses were thrown down; and at Acre part of the walls and some buildings. Saffet was entirely destroyed, and nearly all the population, amounting to between 4000 and 5000, had perished. The ground near the city was rent into fearful chasms. * * Tiberias was also entirely overthrown—the lake rose and swept away many of the inhabitants. The *Despatch* contains a list of *thirty-nine* villages which had been totally destroyed, and six partially. The earthquake was felt on a line of 500 miles in length by 90 in breadth. It was also perceived in the island of Cyprus."—*Athenæum*, 8th April, 1837.

"EARTHQUAKES.—The *Venice Gazette*, of April 17, gives details of an earthquake in Greece, which has led to the most deplorable consequences. It happened on the 1st of April, in the *four islands* of Hydra, Spezzia, Poros, and Santarino. The shocks continued a week; and it seems that the central point from which they proceeded was the last island, *almost the whole of which has disappeared.* It is said that above 4000 persons perished. The accounts from Trieste give a dreadful picture of the disasters of Santarino: the town and the inhabitants swallowed up by the sea, and no vestige remaining."—*Weekly Dispatch*, 7th May, 1837.

N.B. These dreadful events occurred at the *very period* predicted, and in the *exact places* named; and these predictions were on sale in October, 1835, full fifteen months before the events!

"Some remarkable *accident by water*—evil likely to fall upon the Thames Tunnel."—Nov., 1837.

In this month the Tunnel filled, and one man was drowned.

"I expect a destructive disease to ravage those parts of the world (Tunis, Syria, and Morocco), which may be the plague or the

The cholera broke out at Algiers and its vicinity in Oct. immediately after the eclipse on the 13th, from which the prediction was made.

PREDICTIONS.	EVENTS.
cholera, more likely the latter."—P. 38, *Almanac for* 1837.	
"Floods and *destruction by water* will be awfully dominant."—P. 33, *Eclipse of the Moon*, 20th April, 1837.	A coal mine flooded at Mold in May, great numbers drowned; also in Cumberland in July, 28 men and boys drowned.
"On the 26th of this month (January) Saturn transits over the place of the total eclipse of the Sun, on the 20th of November, 1835, and will produce an earthquake about that day. * * I judge that it will occur about the southern shores of the Mediterranean."—P. 22, *Almanac*, 1838.	"EARTHQUAKE AT GIBRALTAR.—Some shocks, slight, though distinct, were felt near the line wall of this place on the afternoon of the 15th of January."—*Gibraltar Gaz.*, Feb. 3, 1838. "The town of Spoleto and its environs were, on the 13th ult., visited with a shock of earthquake, so violent that the inhabitants fled from their dwellings."—*Courier*, 5th February. PESTH, FEB. 7, 1838.—"We daily receive more and more lamentable details of the great earthquake which visited the south-east of Hungary and Transylvania *on the 23d ult.* Alt-Orsowa, Orovitza, Panesova, Hermanstadt, and Cronstadt, in particular, suffered, where public and private buildings, church steeples, &c., fell, or were much damaged. In many places flames are said to have issued from the ground.* A slight shock was felt here in Pesth on the same day. The earthquake extended very far into the Turkish provinces." N.B. A shock was felt at Tynehead on the 21st of January, 1838, and the fluctuations of the barometer were very remarkable, from the 21st to the 26th, in London: also the changes in the weather, and the extreme cold. On the 11th of January, an earthquake at Odessa "occasioned damage to many houses." *W. Chronicle*, 25th February, 1838.
"Saturn stationary in Scorpio, storms and earthquakes will ensue."—March, 1838.	An earthquake was felt at Shrewsbury, at 1 P. M., 17th of March, 1838.
"These EASTERN parts, especially about the shores of Arabia, will suffer fearfully from earthquakes at the time of this eclipse."—15th March, 1839.	"The reports from Amarapoora respecting the earthquake are painfully alarming; FIVE HUNDRED lives are said to be lost. A large pagoda sank into the mountains; many others, and brick buildings, were tumbled down."—*Manchester Guardian*, July 17, 1839. N.B. A severe shock at Rangoon on the 23d of April.
"As Saturn is stationary in Sagittarius, we shall hear of	"The city of Messina was visited by shocks of earthquake on

* This is said to have occurred also at Spoleto.

PREDICTIONS.	EVENTS.
storms and earthquakes when the Sun comes to his square. About Rastisbon, Basle, and *Calabria*, we shall hear of earthquakes."—August and September, 1839.	the 27th, 28th, 29th, and 31st ult. * * The whole population remained out of doors two successive nights."—*Morning Chron.*, Sept. 18, 1839.
N.B. See also the account of the earthquake at Mount Ararat, page 59, *Horoscope*.	N.B. The Sun came to Saturn's square on the 27th, when the shocks began, as predicted.

Note. The reader will not fail to observe that earthquakes have been frequently foretold to the very *day* and *place*, and that all the most extensive and destructive of these fearful events during *ten* years have been accurately pointed out many months before their occurrence. The just conclusions from these facts are, that astral influences are the causes of these events, as taught by the ancient Chaldean philosophers; and that modern men of science are buried beneath a mountain of ignorance on the subject, which has been hurled upon their heads by their own suicidal prejudices, that have caused them to reject Astrology without a knowledge of what are its doctrines, or of what it consists.

We have only to repeat, that no theory whatever but that of the excitement of the electricity of the atmosphere and the earth by planetary position suffices to account for these phenomena.

ON DIVIDING THE HEAVENS.

TO THE EDITOR OF THE HOROSCOPE.

Sir,—It appears to me, the intent of your correspondent, Scrutator, is to involve me and your readers in a mist, so that we may lose sight of the original matter in dispute—viz., the truest method of finding the pole of a planet or house, for Scrutator says we may reasonably expect the Sun to come to the trisection of his semi-arc, and to the cusp of the 12th house, if it (the cusp of the 12th house) pass through this trisection. And then he proceeds to show that a planet with great latitude, as Venus, will not pass through the same trisection. (Why, whoever could expect that it would?) Scrutator then says that the difference of 10′, which he shows in the arcs of direction, will create some little surprise in my mind. Certainly, it did cause some surprise, for he says that he assumes the cusp of the 12th house to pass through the trisection of Venus's semi-arc, when he does nothing of the kind; for if he had, he would have found the ascensional difference of Venus under the pole of the 12th (if its cusp passed through that trisection) to be two-thirds of Venus's semi-arc, less 60° or 10° 26′, which brings out the same direction as subtracting two-thirds of her semi-arc from her meridian distance. But allowing this 10′ of error to be by the Placidian method, let us examine what the result will be by working the direction, using the pole of the 12th, as taught by Scrutator.

Log tangent of pole of 12th 49° 48′ = 10·07308
+ log tan of ♀ declination 11° 10′ = 9·29535

Sine of ♀ asc. diff. under pole of 12th 13° 30′ = 9·36843

Asc. of ♀	130° 30′	Oblique asc. of ♀ under 12th pole	117° 0′
Asc. diff	13 30	Oblique asc. 12th own pole	55 2
Oblique asc. of ♀	117 0′	♀ distance from 12th	61 58

Being a difference from the true arc of direction of 3° 4′ (or a greater error than the Placidian method gives by 2° 54′); for I presume that Scrutator will not assert that a planet is not in sextile to the meridian, and consequently on the cusp of the 12th, when it is two-thirds of its semi-arc distant from the meridian. And this, without begging the question at all, to my views at least, proves the absurdity of the "rational way;" or, to say the least of it, that it gives greater errors than the Placidian way gives, the true arc of direction being, as worked by Scrutator, 65° 2′.

But the matter in dispute is not how to bring a planet to the cusp of the 12th house, but which is the truest method of finding the pole of a planet, so as to bring up zodiacal directions with truth. Let us examine how a direction of the Sun will come up by using the pole of the Sun found by the *rational* way, and then by the Placidian, and contrast them; and let the direction be to the square of Mars, which falls in 29° 20′ of Leo.

Sine of Sun's merid. dist. from the cusp of the 4th 46° 37′ = 9·86140
Tangent of latitude of birth-place 53° 48′ = 10·13555

Tangent of Sun's pole, by the *rational* way, 44° 48′ = 9·99695
Tangent of Sun's declination 18° 48′ = 9·53203

Sine of Sun's asc. diff. own pole 19° 45′ = 9·52898

Log tan of Sun's pole 44° 48′ = 9·99695
Log tan of declination of aspect 11° 43′ = 9·31679

Sine of asc. diff. of aspect in Sun's pole 11° 53′ = 9·31374

AR of aspect	151° 28′	AR of Sun	128° 25′
Obliq. asc. of aspect Sun's pole	139 35	Ob. asc. of Sun's own pole	108 40

Sun's oblique asc. in pole ..... 108° 40′
Oblique asc. of aspect under Sun's pole 139 35

Arc of direction ☉ □ ♂ in zodiac, *rational* way... 30 55

From this calculation, it appears that the pole of the Sun is less

than that of the 2nd house, which does not appear *rational*, as the Sun is only distant from the ascendant 15° 40′, which is less than one-third of the semi-nocturnal arc; consequently it must be in the ascendant, therefore that must be an error. But perhaps Scrutator will say I have not found the proper distance of the Sun from the 4th, as it must be more than that of the 2nd house. So, to suit him, I will adjust its distance by the semi-arc: though I consider he repudiates them for the purpose of finding the poles, if I understand him aright.

Say, as 62° 17′ (Sun's semi-nocturnal arc) is to 90°, so is 46° 37′ (Sun's distance from 4th in AR) to 67° 22′.

Sine of proportional distance of Sun, as above, found from 4th ..... 67° 22′ = 9·96520
Log tan of latitude of birth-place 53° 48′ = 10·13555

Tangent of Sun's pole, by the *rational* way, 51° 35′ = 10·10075
Log tan of declination of aspect 11° 43′ = 9·31679

Log sine of asc. diff. of aspect in Sun's pole 15° 10′ = 9·41754

Log tan of Sun's pole 51° 35′ = 10·10075
Log tan of Sun's declination 18° 48′ = 9·53203

Sine Sun's asc. diff. under own pole 25° 25′ = 9·63278

AR of Sun ..... 128° 25′

Oblique asc. of Sun under own pole 103 0

AR of aspect ..... 151° 28′

Oblique asc. of aspect under Sun's pole 136 18
Oblique asc. of Sun under own pole 103 0

Arc of direction ☉ □ ♂ in zodiac, rational way ... 33 18

This last Scrutator will perhaps say is correct. If so, he ought to have told us that the distances should be adjusted by the semi-arc. If it is not so, he will, perhaps, explain how it is to be done; for the first method (in my opinion, at least) is manifestly an error.

Thus much of the *rational way*. Now let us examine the *Placidian*.

As the Sun's semi-nocturnal arc 62° 17′ is to 90°, so is 46° 37′ (Sun's meridian distance) to 67° 22′. 67° 22′ less 46° 37′ gives the Sun's asc. diff. under his own pole 20° 45′.

Log sine of Sun's asc. diff. under his own pole 20° 45′ = 9.54936
+ log cotangent of the Sun's declination 18° 48′ = 10·46798

Log tan of the Sun's pole of position 46° 9′ = 10·01734
Log tan of declination of aspect in 29° 20′ ♌ 11° 43′ = 9·31679

Log sine of asc. diff. of aspect under Sun's pole 12° 28′ = 9·33413

AR of Sun.....	128° 25′
Asc. diff. of Sun under own pole ...	20 45
Oblique ascension of Sun.....	107 40
AR of aspect	151° 28′
Oblique asc. of aspect under Sun's pole...	139 0
Oblique asc. of Sun under own pole	107 40
Arc of ☉ □ ♂ in zod. by Placidian rule....	31 20

If this last direction be true, the first is too little by 25′, and the second too great 1° 58′. But let us take 29° 20′ of Leo, and direct it in mundo to the conjunction of the Sun; and this ought, I think, to give the arc of direction, the Sun and place having no latitude. Semi-nocturnal arc of 29° 20′ ♌ = 73° 32′. AR 151° 28′. Distance from ascendant, 49° 58′. As 62° 17′ (Sun's semi-noct. arc) is to 15° 40′ (Sun's distance from ascendant) so is 73° 32′ (semi-noct. arc of 29° 20′ Leo) to 18° 30′. Secondary distance of 29° 20′ of Leo, primary distance 49° 58′, less secondary distance 18° 30′, leaves the arc of direction 31° 28′, being 8′ more than the arc given by the Placidian rule, 33′ greater than by the first pole used, and 1° 50′ less than that given by the second method; consequently, without begging the question, I think it demonstrates that the Placidian rule comes nearest the truth of any. I would just observe, that the difference of 8′ arises, in my opinion, from a slight variation in the poles by a different declination rising; but Scrutator will say the irregular curve of the pole or place of the Sun.

For the preceding reasons, I am perfectly satisfied of the irrationality of the rational way of finding the pole of a planet or house; whether I have proved the correctness of the Placidian way or not, I leave it for the reader who will take the trouble to examine the affair in dispute to decide. But Scrutator insinuates that I must be joking in referring him to "Partridge's Defectio Geniturarum," &c., and says, that they do not reason on the matter, but assume the Placidian way correct; and because the other doth not agree with that, they say it is wrong. If Scrutator has read what Partridge says on the subject, his way of understanding it is different from mine, I must say. But, to settle that, I insert the words of Partridge on the subject, extracted from the quarto edition, published in 1697, in London :—

"Fifthly, that of *Joannes de Regiomonte*, or *Regiomontanus*, called the Modus Rationalis, which divides the heavens into twelve equal parts in the equator, but not in the zodiac, where the cusps or beginnings of the houses do really fall; and therefore all other parts of that line drawn from one intersection of the meridian and horizon to the other, signifies nothing to us so much as that part or point that cuts the ecliptic, for that alone is the cusp of the house, and the only point that we direct under its peculiar pole. This division is by *Morinus* commended as the most exact extant; and yet, in page 409, he complains of its deficiency, and tells us afterwards, that by a new invention of his own he had supplied that defect, and made it serviceable to all parts of the universe,

even within the polar circles, as you may see in the page before quoted, to which I refer you for further information in that matter. But I do say, positively, that the dividing the equator or vertical circle into twelve equal parts is utterly impossible, to form a true astrological scheme, that shall agree with motion, let them draw their lines of distance from what points they please, either from the intersection of the meridian and horizon, the poles of the world, the poles of the zodiac, or any other point whence they shall think convenient, provided they will let those lines, so drawn, divide the globe into two equal parts, if extended quite round. Nor do I see any reason why the poles of the houses should be so different and unequal as they are in this, called *the rational way*, &c.; for in the region of 51° the pole of the 11th is almost 32°, pole of the 12th 47°, so that the 11th differeth 32 degrees from the 10th house, the 12th 15 degrees from the 11th, and the ascendant but four degrees from the 12th. But, more plainly to show you that this division is false, observe—Let us suppose a figure, in which the very beginning of *Capricorn* is on the 10th. According to this division, in the latitude of 51° you have 13 degrees of *Capricorn* on the 11th, which should be 18°; and six degrees of *Aquary* on the 12th, which should be 13°; and 24 degrees of *Taurus* on the 2nd, which should be but 17°; and 17 degrees of *Gemini* on the 3d, which should be but 11° of that sign. And this I thus prove:—Let the Sun be then in 0° 0′ of Capricorn. The semi-diurnal arc of the Sun is 56° 48′, of which the third part is 18° 56′; and suppose the Sun on the ascendant exactly, then, by the rational, when the Sun comes to the cusp of the 12th, there will be 1° of Sagitary on the 10th, whose right ascension is 238° 51°. This I subtract from the Sun's right ascension, and that shows the Sun to be 31° 9′ distant from the 10th house, which, by dividing of true motion, ought to be 38° very near, which gives 21° of Scorpio on the midheaven, and not 1° of Sagitary, when the Sun comes to the cusp of that house. Hence it is evident that the *rational* differeth from truth 7° on the cusp of that house. Again, when the Sun comes to the cusp of the 11th house, by the rational there will be 18° of Sagitary on the 10th, whose right ascension is 256° 57′, which I subtract from the Sun's right ascension, and the distance is 13° 3′, which ought, in truth, to be 18° 56′ by the *diurnal arc*,* with 12° 28′ of Sagitary on the 10th, instead of 18°; so that it is plain the rational on the cusp of this house also differeth from *truth** almost 5°. But yet I do confess that the difference is not so great when signs of long ascension culminate; and yet that difference is considerable also, especially to those who calculate the cusps of the houses to minutes and seconds."—*Defecto Geniture*, pp. 30, 31.

Again, he says—

"The sixth way is what I call *Ptolemy's*, and it is, to say all in a word, the only true division in nature, it being real, and not imaginary, agreeing with itself and its own principles, and built on that which will never alter while time endures. In this we divide true motion, but they divide empty air; we divide that which is visible, they divide that which is only imaginary, and take it for granted, that because they

* Partridge here makes "truth" to be the *semi-arc* method; which is such, because it is the measure of *true motion* in nature.—Ed. Horoscope.

divide the equator into equal parts, therefore that division must also be true in the ecliptic, which you see is false. Nor is it possible ever to project a true division of the heavens, either upon the globe or by trigonometry, where the equator is made the basis of the division; and the reason is plain, because the ecliptic and equator have different poles. They may, by straining of it, make it agree in some, but never in all parts of the circle.

"The division of the heavens into houses or parts, so called, ought to be proportional one to another, *according to the quantity of the diurnal or nocturnal arcs;** and this is proved from the words of Ptolemy, when he makes the 11th a sextile to the 1st, the 10th a square to the ascendant, and the 9th an exact trine to the horoscope, as you may see Lib. 3, chap. XII. And this harmony doth not consist *in the mechanical lines or circles* of the houses drawn or imagined, but *by exact and due proportions of the circle by which they are made*, assigned and dedicated to those parts called houses. It is not sufficient for these houses to be equally divided in one circle only, whether it be the equator, the zodiac, or the vertical, or any other chosen for such purpose; but out of those circles also they ought to be equally divided by a true proportional division; and this for the more certain finding the giver of life, which in the other domifying divisions will be most uncertain, according to the ways laid down by Ptolemy to find it."—See pp. 32, 33.

Again—

"It doth also wholly reject and disown the division of the vertical circle, which passeth by, and cutteth the equator in the points orient and occident. And though that division of the heavens is moderately proportional, and for the most part constant and certain, yet it is not a natural division, and that for these reasons:—First, it doth not divide the *motion* and influx of the stars, but the parts of the air only. Secondly, it doth not determine the proportional distances of the houses from the *à quo et ad quem* of the stars' motion, but from the points of their parallels, which, indeed, are neither natural nor real, and to say the truth, nothing at all but imagination; by which means they first lay an imaginary foundation, and then build an imaginary structure thereon. Thirdly, let there be two stars or more in conjunction exactly in the point rising, and at some distance from the equator, then their opposite point must be in their exact degree of setting. If so, then, why should their intermediate proportional distances between the angles be made by those parallels in which they do not either rise or set? and is it not a very idle thing to take their distances of motion from other parts and points than those of their inception and desition, which is really the true *à quo et ad quem* of their rapt. motion in our sight and hemisphere? Therefore the distances of motion ought to be taken from those points from whence the stars begin to move, and to increase their distances by motion."—Page 36.

"It also rejects that of Regiomontanus, called the *rational*, which divides the equator into twelve equal parts, and that for the very same reasons above alleged against the division of the vertical circle; for though they do not err on the same bottom and principle, yet they err equally in the consequence and thing they aim at, which is a true and

* To this we perfectly agree.—Ed. Hor.

equal division of the heavens. Many more things might be said in the matter, but I think these are sufficient. *The division of the heavens, and true parting of the houses by the pen of nature, do each of them consist of* TWO TEMPORAL HOURS, *either of the place or star—that is, by a proportional division of the motions of the moveable arcs from one angle to another; for it is certain every thing that moves measures its own distance by motion, and that motion by time, as you have in effect heard above.*"—See p. 37.

This is what Partridge says, that learned author who, Scrutator says does not reason on the subject.

In concluding I would just observe, that if the *rational way* be adopted, we may abandon the use of semi-arcs of planets altogether, for they will not, according to that method, give the true direction (as may be seen in the direction which is worked for an example for investigation) within a degree or two; and I must say that Scrutator has advanced nothing to prove, to my satisfaction, that the *rational way* agrees with true and real motion with any thing like the accuracy that the *Placidian* way does, whether it be a true circle or an irregular curve; and *real motion* should be considered a little in the matter in dispute.

Yours, &c., J. HIRST.

Holbeck, April 9th, 1841.

[It appears to us, that Scrutator differs from Mr. Hirst in a great measure, owing to a misconception of the mundane aspects, which are the foundation of the houses. A diurnal arc is always equal to an *opposition* aspect, though it may measure more or less than 180°; and this because a planet rising is always on the *opposite* horizon to that it is on when setting. Of course, there can only be 180° between the two points when the planet is on the equator; at all other times, the diurnal arc must measure more or less than 180°, and the planet be more or less than twelve hours above the earth. But, whatever be its arc from horizon to horizon, the space of its *house* will be always one-sixth of that arc, or what has been called its "double horary time," which is one-third of its semi-arc. And as its *whole* arc will be equal to an *opposition*, though not exactly 180°, so will its *semi*-arc be equal to a *square*, though not exactly 90°; and, therefore, a planet on the horizon is always in MUNDANE square to another on the midheaven; and in like manner, when that planet rises one-third of its semi-arc, or the space of its "house" above the horizon, it will be on the cusp of the 12th house—that is, of *its own* 12th house; for it is manifest that we do not decide the cusp of *its* house by the *longitude* on the cusp of the 12th house of the *Sun*, which is that used to mark the figure of the heavens. And, indeed, a planet may be several degrees beyond the cusp of the *Sun*'s 12th house, and yet be in its own 12th house, which can be only known by the proportion of its semi-arc, as said before. Nor do we deem the question of poles worthy of dispute, for the houses depend not thereon, nor are they, the poles, necessary for the calculation of any kind of direction, either *in zodiaco* or *in mundo*, every direction being more exactly found by using the semi-arcs, as taught in the second edition of the "Grammar of Astrology."—ED. HOROSCOPE.]

ON PLANISPHERES.

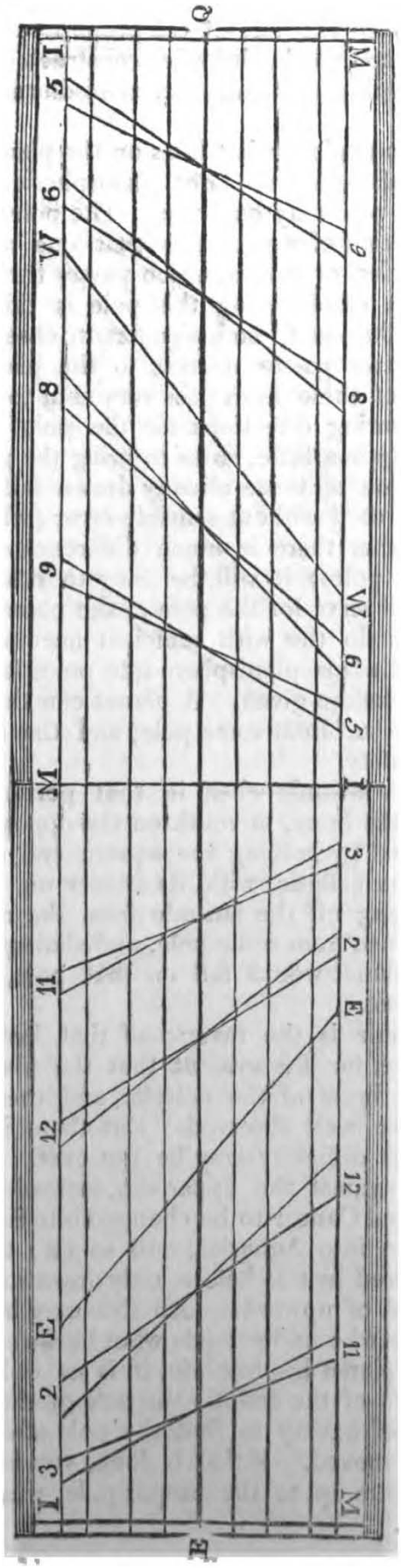
(*Continued from page* 147.)

I proceed, as I promised, to give some further directions for the construction and use of planispheres.

I have said that the use of the second slip on each side of the board is to make one side of the board serve entirely for one latitude. It will be readily seen, that if the board, as already marked, be inverted, so that the letters M, &c., are downwards instead of upwards, the midheaven will become the imum cœli, and *vice versa*, and all the lines will represent different houses from before, except the ascendant and descendant. Let the proper letters be therefore marked on the opposite ends of the various lines. Which way the board is to be turned for any particular horoscope will depend upon the position of the signs in that horoscope; and in measuring different directions in the same horoscope, it will sometimes be convenient to turn the board one way, and sometimes the other.

We may now proceed to set a figure by the planisphere. Suppose it is for 4h. 5m. in the morning, 24th May, 1819. The clock is then three minutes and a half behind the Sun; therefore the *solar* time of the birth is 4h. 8½m., A. M. (As I have known some misapprehension to exist on this subject of the equation of time, it is as well to mention that it ought always to be taken into account; for if it is not, the consequence will be, that at those times of the year when mean time differs a quarter of an hour from solar time, the Sun will be placed on the midheaven for a birth which takes place at noon by the clock, whereas the Sun is really then about four degrees distant from the midheaven.) In this nativity, then, the Sun is 62 degrees past the imum cœli, and the Sun's place is ♊ 2° 6′. It is evident, then, that if the ecliptic be so placed on tne board that ♊ 2° (for this is near enough) is 62 degs. to the right hand of any of the lines representing the imum cœli; or ♐ 2°, that same number of degrees to the right hand of any of the lines representing the midheaven, according to the position of the board, the figure will be set—that is to say, the degree of the ecliptic cut by the line representing the pole (to use the common, though incorrect word) of every house will be the cusp of that house, whether on the system of Regiomontanus or Placidius, supposing both systems of poles to be drawn on the board. Of course, the Sun's distance from the meridian is to be measured by right ascension, and therefore by the brass rule before described. I have said nothing about the latitude of the place, because, of course, the process is the same, whatever latitude is taken, so long as it is one for which the board is marked.

Next let us consider the measuring of directions. And here the process will be just the same on the planisphere, whether we use the Placidian or rational poles. Very likely some persons may fancy that, as the Placidian system proceeds by *semi-arcs* only (at least, when it is properly understood, though not as it is inculcated in certain works, wherein formulæ which are only applicable to great circles are applied to it), this mode of measuring directions to certain lines, as poles, must



PROJECTION OF A PLANISPHERE.

be incorrect. But they must bear in mind that these lines have been so constructed as to represent the *loci* of the proportional divisions of all the semi-diurnal arcs; so that, having once constructed them, they may dismiss for the future all consideration of semi-diurnal arcs, or of the nature of poles.

But it is necessary to explain what lines on the planisphere are to be used for the poles of the planets. For planispheric purposes a most simple definition of a pole may be given. The pole, or circle of position, or curve of position of a planet, is that one of the rational or Placidian poles, or circles, or curves, which passes through the body of the planet. The mode of observing this pole is this. If the planet has no latitude, or so little as to be insignificant, observe which of the lines on the planispheres passes nearest to the planet's place in the ecliptic. If any one of these lines pass very near to it, then that line may be used in measuring directions for the pole of the planet by merely moving the ecliptic a little, so as to bring the planet exactly on to that line. If no line of those already drawn fall so near to the planet that it can be used without sensible error (which will be easily seen by observing whether there is much difference of inclination between the two nearest poles), it will be easy to interpolate a line for the purpose, which will serve for the pole of the planet. Any one who cannot trust himself to do this with sufficient accuracy had better, in the first instance, divide his planisphere into poles for every three degrees, by the methods before given. A planet can then never be more than one degree and a half from some pole, and the nearest may then be used with perfect safety.

If a planet has north latitude when in that portion of the ecliptic which is engraved on the brass, or south on the opposite signs, its place may readily be observed by holding the square end of the brass rule against the edge of the ecliptic, with its corner on the planet's longitude, and then marking off the latitude from the rule on the board, and observing its distance from some pole, and sliding the ecliptic along till the place of the planet would fall on that pole, just as when the planet was in the ecliptic.

If the planet's latitude is the reverse of that last mentioned, this cannot be done at once, for it is evident that the place of the planet would fall under the brass of the ecliptic, and therefore its distance from a pole cannot be well observed. But there is a most simple method by which this difficulty may be got over. Turn the ecliptic with its straight edge against the upper slip, instead of the lower, and consider the sign marked Cancer to be changed into Sagittarius, Gemini into Capricornus, Leo into Aquarius, and so on; then the planet's latitude may be measured just as before, only downwards from the edge of the equator instead of upwards. All this may be done in various other ways, as any one who understands what he is about will easily see. In all cases where the planet has latitude, it is as well to observe and note down what degree of the ecliptic the pole of the planet cuts, and thus save the trouble of having to find the pole afresh every time the ecliptic happens to be moved. If that is done, you have only to move that degree of the ecliptic up to the proper pole, which of course will be easily known again.

Perhaps some persons will wonder what can be wanted with the poles of any planets having latitude, except the Moon, as it is not usual to employ any of the rest as significators. The only answer I shall give to that, as I do not write now for the purpose of advancing any particular opinions of my own, is to recommend them to try the use of the other planets as significators; and, if I am not very much mistaken, they will cease to think the discovery of their poles, for the purposes of direction, useless.

Having now got the poles of all the significators—or, at least, knowing where to find them when they are wanted—we may state a very simple and general rule. Every direction, on a planisphere, is the distance (measured parallel to the equator) from the point which is used as a promittor, whether the body of a planet or a point in the ecliptic, to the pole of the significator. In what are called *direct* directions, the promittor lies on the left hand of the pole of the significator; in *converse* directions on the right hand. Of course, the most convenient way of performing these measurements is to lay the corner of the graduated rule on the promittor, and holding the rule parallel to the equator, to observe where the pole of the significator cuts it. The distance cut off is the arc of direction, which, when equated to years by the instrument before described for that purpose, gives the length of the direction.

This method serves as well for mundane directions as others. For example, the distance of a planet to the left hand of the pole of the 8th house will be the arc of direction of M.C. to the sextile of the planet.

By means of the planisphere, mundane aspects between planets which are not on or near the cusps of houses may be very readily observed. You have only to bring the planet up to the nearest pole drawn, and any planet falling on the pole 90° distant (meaning, of course, on the equator) will be in mundane square to the former. Immediately the figure is set you can see what planets are in semisquare and sesquisquare to the midheaven or ascendant: viz., those which fall on the poles midway between the meridian and horizon. For the measuring of the directions called rapt parallels I shall not undertake to lay down any rules, for I confess I do not sufficiently understand the theory of them. Not that there is any great difficulty in performing on the planisphere the operation analogous to the prescribed calculation of these directions; but until I see some more intelligible description of what a rapt parallel *really is*, or is supposed to be, than I have yet been fortunate enough to meet with, I shall defer attempting to show others how to measure them.

I think that, from the instructions here given, any body who possesses a moderate amount of astronomical and astrological knowledge and mechanical skill, will understand how to measure all kinds of directions on the planisphere, and will at once perceive the great advantages which it has over arithmetical calculation in rapidity. In accuracy, indeed, however large and however perfect a planisphere may be, of course it cannot be compared with calculation. But on this point let me be allowed to say a few words, as I think some misapprehension prevails respecting the importance of a high degree of exactness in the results of astrological operations.

If the effects of directions were instantaneous, or if either the commencement or the maximum effect were known to take place exactly at the time of the completion of the arc of direction, then evidently exactness would be of the greatest importance. It is possible that this may be the case; but if it is, then assuredly is there no system of calculation for which its most determined advocates will venture to claim the merit of infallibility. But, independently of the argument from the failure of any system to produce results invariably exact within a few days, or even weeks, there is a strong *à priori* reason against the above supposition, in the circumstances that the planets themselves are not points of an inappreciable magnitude at our distance from them, and that a direction must therefore take some considerable time in passing from its commencement to its termination. It is said, though perhaps this is stretching the doctrine too far, that the direction of M. C. to the conjunction of Saturn lasts in effect two years; and certainly the effects of that direction are very frequently long and tedious, as indeed those of many others are, within the experience of every astrologer.

I believe that the opinion which is commonly entertained on this subject is the correct one; viz., that directions have not of themselves any definite point of commencement or maximum effect, but that, if the event to be produced is one necessarily occupying a short, or even momentary time, as the accession of a king to the throne, it may take place at any time within a short distance of the mathematical completion of the arc of direction, and when transits or other aspects may call it into full operation. If the event is one of long duration, and of no definite beginning or end, it may well be attributed to a proper direction which comes up during any part of its continuance.

If this view of the case is correct, it will follow that that extreme exactness which is sought by some persons in the performance of astrological operations is not of such great importance as at first sight it may seem to be. But let it be remembered I here mean exactness of calculation only, not correctness of system: the latter, no man who wishes to see this, or any other science, established on a right foundation, can deem unimportant. I make these observations for the purpose of obviating a not improbable objection to the use of planispheres, as tending to produce careless and inaccurate habits of working directions, and for the purpose of showing that, by careful working with a good planisphere, events may be predicted with as much accuracy as any one can safely venture to predict them (from directions alone) by calculation. Not that I wish by any means to induce any one to abandon calculation for measuring. It is well occasionally to verify important directions by calculation, especially when occurring in horoscopes, where, from the position of the ecliptic, a planisphere is liable to greater error than usual.

One important use of a planisphere remains yet unnoticed, and one which makes it worth the while of every one to possess such an instrument, however unwilling he may be to trust to it, or to his own skill in managing it, in the actual working out of a nativity. This is the facility which it affords of trying figures for a birth of which the time is not known very exactly, by various experiments on leading directions; for which purpose you have only to shift the ecliptic into the various

positions which you think likely, and rapidly try a few of the principal directions to the angles. The calculation of a vast number of merely experimental directions may thus be saved, and no calculation need be performed, until by this kind of trial you have found a position of the ecliptic which appears to bring the principal directions at the right time for known events of the life.

I am not aware that the subject of planispheres requires any further observations. Any one who has any difficulty in comprehending the above instructions, or who wishes for more, may communicate his difficulties to the editor; and if, from the questions which are asked, the interrogator appears to be a person whom it is not hopeless to attempt to render competent, in his present state of knowledge, to construct or use astronomical instruments, I will do my best to give him the information he may desire.

H

ASTRONOMY.—No. IV.

"Beyond the sphere of *Mars*, in distant skies,
Revolves the mighty magnitude of Jove,
With kingly state, the rival of the Sun."

JUPITER.—We come now to the largest of all the planets—the most beautiful of all the Sun's attendants—the glorious Jupiter; before whom the Earth, Mars, Venus, all dwindle into nothing and are lost in the comparison. This huge body exceeds the bulk of Venus or the Earth nearly 1300 times! Its diameter is 87,000 miles, nearly one-tenth that of the vast Sun itself, and its circumference above 273,000 miles,* exceeding that of the Earth about 11 times; and it would weigh in a balance above 322 times the mass of the Earth.

Jupiter has four beautiful moons revolving apparently round its body in paths which form *ellipses*, as does the Moon round the Earth; the largest of which is about the size of the little planet Mercury. This large planet himself courses round the Sun in *twelve* years, in rather a lengthened *ellipse*, its eccentricity being one 20th of his distance from the Sun. This distance is about five times that of the Earth, being 494 millions of miles. The orbit of Jupiter lies nearly in the same plane with that of the Earth, the *ecliptic;* and this vast body revolves on its axis amazingly swift, going round from star to star, as we explained the Earth does, in rather less than *ten hours!*

The axis of Jupiter is not inclined to his orbit as we have seen those of the others; but continues almost perpendicular thereto; whence he has no change of seasons of importance, but one continual summer. The wisdom of these arrangements is astonishing; for, as the rays of the Sun fall directly perpendicular on the body of the planet, and always continue to do so, the heat must be, as nearly as possible, equal at all times of Jupiter's year. Now that year contains twelve mundane or Earth years; and if there were a proportionate length of winter, that cold season would be *three of the*

* This is beyond the distance of the Moon from the Earth; therefore a line connecting them would not extend round Jupiter.

earthly years in length. Of course the continuance of cold for such a period would destroy all *vegetable* life, and probably all animal life also. But on the other hand, the intensity of heat produced by the Sun's rays acting in a direct line without any variation, would cause equal mischief if no remedy were found for it. Such a remedy *is found* in the very rapid rotation of the planet on its axis. The length of day and night is equal all the year round to all parts of the body of the planet; and though the rays of the Sun fall directly on the heads of its inhabitants at noon, yet we must remember that the days are very brief, and that the noon-day heat is extremely transient, the entire day being but five hours. The rest of the day the rays of the Sun fall obliquely, as the horizon recedes from them in the morning, and approaches them in the evening. Thus the radiation is not so strong as to scorch or injure, nor, on the other hand, can the heat escape too much in the brief night of five hours.

The moons of Jupiter are four in number, all of which rotate on their axes in the *same time* as they appear to revolve round their planet; so that they always turn the same side to him. They travel nearly in a line with Jupiter's equator, which you will remember is also in the plane of his orbit very nearly, the difference being only 3° out of 90°. The moons apparently revolve round Jupiter in periods varying from two days to seventeen days; and such is the beauty of wisdom displayed in their constitution and motion, that, whenever any one of the three first passes between the Sun and the planet, so that its light is lost to the planet, there are always *two others* in a directly opposite situation, shining in rich splendour, as the full Moon does upon the Earth.

There is another very remarkable feature in this immense planetary body; we allude to its belts. Round the central portion of the planet's body, lying always parallel to the planet's equator, are large broad masses of clouds. The immense velocity of his rotatory motion (near 30,000 miles per hour), appears to collect and cause to exist in the form of belts or bands these curious phenomena. They vary in their positions occasionally, and allow parts of the body of the planet to be seen through them, like spots, which appear darker than the surrounding belts. The existence of these clouds proves that the rays of the Sun have very great power upon this planet; for there must be a very extensive process of attraction and condensation going on about the equatorial seas of Jupiter to collect such huge masses of vapour. But the heat of Jupiter, upon the old theory of heat from the Sun being produced only according to the square of the distance, would amount to only *one twenty-seventh* of that of the Earth. Now, if this were truly the case, when the tropical rays of the Sun caused the thermometer to stand at 110 degrees on the Earth, it would be at four degrees above zero, or just 28 degrees below the freezing point, in Jupiter. So that a greater degree of heat (or rather a *less degree of cold*), than this could never be experienced even on the equator of Jupiter. It is quite evident that, if this were the case, the clouds we perceive could never exist, for the seas would be perpetually bound in one adamantine chain of ice; no moisture could escape; and, certainly, no vapours could exist in any

other form than that of dense fields of snow. These considerations, and the melting of the snow upon the polar parts of Mars, are decisive evidence against the theory of light and heat from the Sun, extending only according to the square of the distance.

As regards the question of the existence of living beings on the planet Jupiter, we avow that we can scarcely believe that this vast rival of the Sun, this stupendous globe, in bulk equal to more than all the other planetary bodies, is made altogether in vain, when we perceive a use even for the minutest feather on the wing of a butterfly. There are persons, however, residing on that little Earth, who conceive that this is the case, and whose vanity leads them fondly to imagine that not it alone, but all this vast universe, was made for their service only—a very little humility would have taught them that "there are many things in heaven and on earth not dreamed of in their (selfish) philosophy!"

> "Here o'er a copious orb a lurid ray,
> Opaque and broad, is seen its arch to spread
> Round the big globe at stated periods led."

SATURN.—Our wonder is still more excited by the planet Saturn, his *bright* but mysterious rings, and his seven attendant satellites. This body, Saturn, is not much inferior to Jupiter, being 79,000 miles in diameter, and about 1000 times the bulk of the Earth, and about one-eleventh of the diameter of the glorious Sun. This vast globe has no less than *seven* moons attending it, which, without cessation, ever seem to roll around the body of the planet, and to reflect the rays of the Sun thereon. But a still more remarkable phenomenon are two broad but thin rings, concentric with the planet, both lying in the same plane with the planet's equator, and being separated by a small interval from each other, and by a larger interval from the body of Saturn. These rings do not exceed 100 miles in thickness, and are separated from each other not quite 2000 miles, and the interior one 19,000 miles from the planet.

The body of this planet rotates on its axis in 10 hours 29 minutes, and in precisely the *same* period the rings rotate also on their axes; so that the same part of each ring is always presented to the same portion of the planet. Now, here again we behold a token of creative wisdom; for it may be demonstrated that "the smallest difference of velocity between the body and the rings must infallibly precipitate the latter on the former, never more to separate." That these rings are opaque, solid substances is shown by their casting a shadow on the body of the planet, and on the other side receiving the planet's shadow. The days in Saturn are not of equal length, the axis being inclined about 29 degrees to the orbit; hence, as the length of his year, or course round the Sun, is 10,759 days, or 29 and a half earthly years, it follows that for above seven years at a time the poles of the planet are immersed in perpetual winter, not receiving any rays directly from the Sun. But to compensate for this lengthy state of darkness, a supply of REFLECTED light is amply afforded by the aid of not less than *seven moons*.

These bodies appear to revolve round the planet nearly in the same

plane as his rings, which we have seen rotate in a plane with his equator. Their distance from Saturn varies, as regards the first *six*, from about 140 to 870 thousand miles; and their periods of apparent revolution from 23 hours to 16 days. But the outside moon, which is about three times as far off as the *sixth*, is about 11 times as far off Saturn as the Moon is from the Earth, being 2,550,000 miles nearly; and is remarkable for moving in a different plane from the others, its orbit being inclined away from the orbit of Saturn about 25 degrees. This outside moon of Saturn is not less than 79 days in making its apparent revolution.

The whole of these satellites, or moons, rotate on their axes while seeming to revolve round their primary; at least so we may presume, as this fact has been proved as regards the outermost moon, which, like the Moon of the Earth, forms one rotation in one revolution. The hourly motion of Saturn through the fields of space is about 22,000 miles; and as its distance from the Sun is so vast, being nearly *ten* times that of the Earth, or 906 millions of miles, he performs a circuit of not less than 2845 millions of miles in one of his years. His eccentricity is about 49 millions of miles. The rapid motion of Saturn on his axis, being at the rate of not less than 24,000 miles an hour, as regards his equatorial portions, causes his polar diameter to be to his equatorial as 10 to 11, or about 7000 miles less.

This motion causes the same appearances of clouds in belts about his equator, as in the planet Jupiter. These clouds are found to break up, in some measure, occasionally, and permit dusky spots to be seen on the body of the planet. These facts make it evident that he has an atmosphere, and consequently a variety of temperature, or seasons. But as, if we divide by the square of 95 millions (the Earth's distance from the Sun), the square of 906 millions (Saturn's distance), we shall get a quotient of 92; it follows that when the thermometer stands at 92 degrees on the Earth, it stands at one degree above zero in Saturn. And as it never reaches 184 degrees on the Earth, it is never two degrees above zero in that planet. It is, therefore, manifest that, as there could be no clouds floating about, if the thermometer were always below 30 degrees beneath the freezing points, and as such objects *are* perceived in Saturn, we must conclude that, instead of being a dead and frozen mass of inert matter, that this vast and beautiful body receives the solar light and heat in a degree very different from that we have spoken of, and becomes a theatre of the most striking display of beneficent wisdom.

It may be presumed that the shortness of the day in Saturn is connected with the reflection of the solar light by his rings; for it is possible that these act in some manner as *lenses*, and concentrate the light on some portions of the planet, which would seem to require a rapid alternation of day and night to prevent excess of heat being absorbed. At all events, it is impossible to look at the planet through a good telescope without being struck with the conviction that its extremely brilliant appearance denotes a degree of solar light (and, of course, *heat)* far beyond *one part* in 92 of that of the Earth, which is the proportion it should possess according to the square of their relative distances.

HERSCHEL.—Of this distant planet our telescopes show us nothing but a small illuminated disc, of a bluish white colour, without rings, belts, or discernible spots. This planet was discovered as late as 1781, by the celebrated man whose name it bears. Its immense distance from the Sun is above nineteen times as great as that of the Earth, four times that of Jupiter, and twice that of Saturn, being 1822 millions of miles. This, of course, prevents any very accurate knowledge of its constitution having yet been discovered; but we already know that it has not less than six moons attending it, and there are probably others. The orbit of Herschel is nearly coincident with that of the Earth, but the planes of the seeming orbits of his moons are upon a different system from the other planetary bodies. They appear to revolve, not in ellipses, as do other satellites, but in *circles* around the planet; and their paths are inclined away from the plane of the planet's path about 79 degrees, so that their seeming orbits are nearly perpendicular to the ecliptic; from which they would seem to revolve round the planet's poles, instead of round his equatorial parts. The first four have periods of about six, nine, eleven, and thirteen and a half days; the 5th *three times* the period of the 4th; and the 6th again *three times* the period of the 5th; being 108 days.

It is thought that their motion is retrograde, being different, or rather contrary to the order of motions of all other bodies we have yet noticed. Those bodies move *direct*, or *from the right hand* to the left; these moons of Herschel are said to move *from the left* to the right hand, or *retrograde*. But this may be an optical illusion, owing to the difficulty of deciding which part of their apparent orbit inclines to that of their primary.

The degree of light and heat on the planet, according to the square of the distance, should be only as *one* to 367 to that on the earth; so that all idea of life, either vegetable or animal existence, is out of the question upon that theory. But yet the existence of moons prove that *light there must be*, even *moonlight;* from whence we may presume that the planet enjoys a sufficiency of the direct light of the *Sun* also, and that this large body, which is 80 times the bulk of the Earth, and 35,000 miles in diameter, is not a mere useless chip, struck off without an object by the Omnipotent Artist of the universe. We may conclude by observing of this planet, that it is no less than 84 years going round the Sun, at about 16,600 miles an hour.

EQUATION OF TIME.

There is, perhaps, no problem in Astronomy that causes more difficulty to the young student than that of the different modes of measuring time. A letter from a correspondent has induced us to offer a few remarks, by way of clearing up some of the difficulties of the subject.

All time is originally dependent on the motion of the Earth on its axis, as there is no other regular and undeviating motion known in all nature by which we can mark the lapse of events which we call "time." Each rotation of the Earth on its axis, or period elapsed

from the appearance of any fixed *star* on the meridian of any place until it be again seen on that meridian, constitutes one DAY, which is termed a *sidereal* day. Now, the *length* of a sidereal day cannot be even expressed in any way without comparing it with some other period of time; but we cannot compare it with a solar day—that is, the time elapsed during the period the Sun takes to pass from the meridian of any place to that meridian again—because that period is variable, no two succeeding solar days being the same. The Earth, in its *elliptical* orbit, moves irregularly, and therefore an apparent solar day is a variable quantity. It has, therefore, been determined by astronomers to *invent* a DAY, with which they should compare the motion of the heavenly bodies. This invented day is the mean or average of all the apparent solar days in the year, and this they term a MEAN SOLAR DAY; and when they speak of *mean* time, they allude to a portion of such day or days. An imaginary sun is conceived to move uniformly in the equator, having a motion exactly equal to the *mean* of the real Sun's motion in right ascension, and the lapse of time between the departure of this imaginary or *mean* sun from a meridian, until it return to that meridian, is the duration of a *mean* solar day. Clocks and watches mark this time; wherefore twenty-four hours, or a complete revolution of the hour-hand of a clock, should be exactly one mean solar day.

Now we arrive at something wherewith to compare the rotation of the Earth on its axis, or the sidereal day. This occurs, then, *once*—that is, the Earth turns round exactly once while a good clock marks 23h. 56m. 4·0906s. of *mean* solar time. Therefore, we find that the Earth turns round quicker than the hour-hand of a clock or watch.

The time deduced from the *appearance* of the Sun on the meridian has been called *true* time; but it is more correctly called *apparent* time. We cannot ascertain *mean* time at once from observation; but by observing the true Sun, and knowing the angular distance in time between the true and the mean sun, we may easily deduce it. Thus, suppose the true Sun to be observed on the meridian of Greenwich on the 1st of May, 1841, it would then be *apparent* noon at that place. But the *equation of time* at this instant, or the difference between *mean* time and *apparent* time is 3m. 3·12s, and as the clock is *slower* than the Sun, it seems that we must subtract this amount from 24 hours to find the *mean* time at the instant named, which will, of course, be 23h. 56m. 56·88s. So that, if a figure of the heavens were to be erected for 11h. 56m. 56·88s. A. M., on the 1st of May this year, by a good clock, we should have the Sun exactly on the meridian.

So much for the difference between *mean* time and *apparent* time. Now, if we wish to know how much *sidereal* time, or true motion of the meridian, has elapsed in a given portion of *mean* time—that is, if we have learned what the right ascension was on the meridian at the previous *mean* noon, and wish to know what it is at any *time by the clock* afterwards, we have to *add* to that clock time the difference between mean and sidereal time. This in 24 hours is 3m. 56·5554s., being for one hour just 9·8565 seconds, and for one minute just 0·1643 sec.; which we call in the "Grammar of Astrology," page 29, for one hour 9·86 seconds, and we direct to multiply this quantity into the amount of mean time elapsed since noon. Therefore, if we have a

figure to erect for 7h. 12m. P. M., on the 1st of May, 1841, we should first find the Sun's right ascension at *mean* noon, which is 2h. 33m. 54·69 s., and ADD thereto the equation of time, as the clock is *slow*, which gives the *sidereal* time (or exact right ascension) on the meridian when the clock pointed 0h. 0m. on the 1st of May. The *equation of time* at *mean* noon on the 1st of May, 1841, is 3m. 3·14s., which, added to the Sun's right ascension, gives for the *sidereal* time, or true point of the equator on the meridian ..... 2h. 36m. 57·83s.

To this add the time of the figure.....	7	12	0
Also add 7h. 12m., or 7·2 × 9·86 sec. = 1min.	0	1	10·99
Gives right ascension on the meridian.....	9	50	8·82

But the sidereal time is given for each day at mean noon in the "Nautical Almanac," which saves that calculation; and the correction for the *difference* of *mean* and *sidereal* time may be had at once by the following

TABLE,

TO CONVERT CLOCK TIME INTO EQUIVALENT SIDEREAL TIME, TO FIND THE TRUE RIGHT ASCENSION OF THE MERIDIAN.

HOURS.		MINUTES.	
Clock Time.	Sidereal Time to ADD.	Clock Time.	Sid. Time to ADD
	M. S.	M.	S.
1	0 10	4	1
2	0 20	10	2
3	0 30	16	3
4	0 39	22	4
5	0 49	28	5
6	0 59	34	6
7	1 9	40	7
8	1 19	46	8
9	1 29	52	9
10	1 39	58	10
11	1 48	60	10
12	1 58		
13	2 8		
14	2 18		
15	2 28		
16	2 38		
17	2 48		
18	2 57		
19	3 7		
20	3 17		
21	3 27		
22	3 37		
23	3 47		
24	3 57		

USE OF THIS TABLE.

Add the amounts opposite the required hour and minute of the clock to that time, and you will have the Sidereal Time since the *previous* noon: to this add the right ascension of the meridian at the previous mean noon, and it will give you the true right ascension on the meridian.

Example.—Required the right ascension on the meridian at 28m. past 5 P.M., 1st June, 1838:—

	H.	M.	S.
To the time by clock . . .	5	28	0
Add for 5 hours	0	0	49
Ditto for 28 minutes . . .	0	0	5
	5	28	54
Right Ascension at noon, 1st of June	4	38	5
Right Ascension on the Meridian .	10	6	59

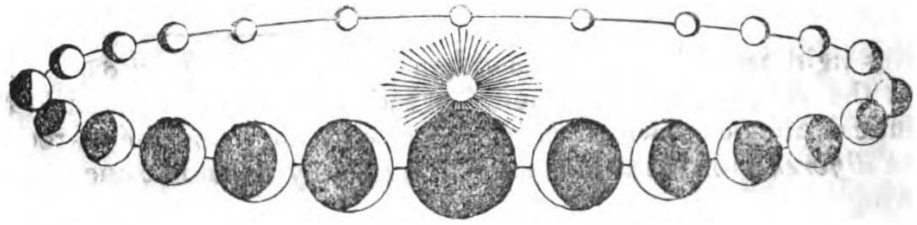
N.B. If the amount exceed 24 hours, subtract that quantity.

MOTION OF THE PLANET VENUS.

To convey an idea of the motion of the inferior planets, *as seen from the Earth*, we here introduce a sketch of

THE PLANET VENUS,

AS SHE APPEARS IN HER DIFFERENT PHASES.



Venus, when moving exactly in the plane of the Earth's course (which she leaves only a few degrees at any time), is sometimes seen moving across the Sun's disc with an apparent diameter of about 59″. Shortly after she appears (moving retrograde) to the *west* of the Sun, in the form of a *fine* crescent, its convexity turned to the Sun. She moves farther westward, but more slowly, and the crescent enlarges for about 70 days, when she becomes stationary at her greatest *elongation*, about 47 degrees from the Sun, and assumes the form of a *semicircle*—her diameter about 26″. She then begins to move *forward* in the zodiac with an accelerating motion, and is again in conjunction with the Sun in about nine and a half months after having been on his disc. This is now the superior conjunction, when Venus is at her greatest distance from the Earth. And if the Earth be at its greatest distance from the Sun at the time, Venus may be removed 166 millions of miles from the Earth.

After being lost sight of in the Sun's rays, the planet is seen in the evening to the *east* of the Sun, nearly round, and a very small disc. She continues to move easterly, or forward in the zodiac, until her roundness is reduced to a semicircle, and she is again stationary. At this time she is generally at nearly her greatest brilliancy, as was the case on the 9th of April, 1841.

Venus now apparently moves westward, or retrograde, her diameter increasing, but her crescent waning, like that of the Moon. At length she again is in *inferior* conjunction with the Sun, when she may, if at her *greatest* distance from him and the Earth, be also at its *least* distance, be only 24 millions of miles from the Earth. Thus she comes nearer to us than any other planet; and the difference between her greatest and least distances is not less that 142 millions of miles. The maximum distance of Venus is seven times that of her minimum distance; therefore we may easily conceive how it is that she has more powerful influence at one period than at another. Her period from one inferior conjunction to another is about 584 days.

PLANETARY MOTION.

TO THE EDITOR OF THE HOROSCOPE.

Sir,—I have lately met with your publication called "The Horoscope." I do not profess to be much of an astrologer myself, but I

am fully convinced that that much-derided science deserves more attention than it has been fated to receive in modern days. However, although I am unfortunately unable, as yet, to appreciate the value of the astrological portion of your magazine, you must allow me to say, that I have been much struck with the clear, and at the same time accurate exposition of the first principles of Astronomy which you have given in several of your numbers, but more especially with the novelty and acuteness of your remarks respecting the motion of the Moon, in your last number, in which you have irrefragably shown that the common (I may say, till now universal) belief, that that body moves round the Earth, is perfectly erroneous.—See p. 154.

I do not write, however, merely to express my opinion of the originality and importance of your views on this point, but to suggest, if it indeed has not already occurred to you, that an extension of your principle may be made, which, though perhaps at first sight more startling even than what you have stated, is equally demonstrable to be true.

You know, of course, that many astronomers believe that the whole body of the solar system, Sun included, is continually moving through space; perhaps that the whole universe is revolving round some central body. Now, if this be true—and certainly the contrary cannot be proved—then this curious consequence will follow, that the Earth and all the planets may be proved not to move round the Sun, any more than the Moon, as you have shown, moves round the Earth, but "in a serpentine curved line."

It is not necessary to draw any figure, or give any mathematical reasoning to prove this, because, if the supposition be that the solar system moves round some remote central body, then we have merely to substitute the words Sun for Earth, and Earth for Moon, in your paper on the subject, and the thing is done, for the cases are then exactly identical. If, on the other hand, the system does not move *round* any other body, but merely progressively through space, the only difference will be that the orbit *q E m Q* in your figure will be a straight line, representing the path of the Sun, and *M* will represent the Earth, or any of the planets, as in the last case.

I think the correctness of this application or extension of your reasoning is evident. You have therefore—at least, I know of no one who can contest the claim of originality with you—established the two important facts, "*that the Moon does not move round the Earth,*" and (if the whole solar system is in motion) that *none of the planets move round the Sun.*

Unless you are yourself preparing to give to the public this extension of your principle, I hope you will deem this of sufficient importance to appear in the next number of your scientific publication. And I remain, for the information I have derived from you,

Yours, much obliged, E. V.

[We invite the attention of the gentlemen at Greenwich observatory, whom we know to peruse our pages, to this important question. Can they derive the Moon's place from her heliocentric longitude?—Ed. Hor.]

EARTHQUAKES IN JANUARY, FEBRUARY, AND APRIL.

Earthquake in Hereford and Wales.—This violent phenomenon was felt at three o'clock on the morning of the 22nd of January, in Hereford, Caermarthen, &c.

"Earthquake in New Jersey.—This city and its vicinity was very severely shaken this morning, at half-past five o'clock, as it is generally supposed, by an earthquake. * * The shock appears to have been felt for about twenty seconds."—*Ohio Observer*, 11th of February; extracted from the *New York Journal of Commerce*.

N.B. This must have been immediately after the lunar eclipse on the 6th, when storms raged all over England, as foretold.

Earthquake in Reggio.—There was a terrible earthquake, on the 22nd of February, in this city—fifteen shocks, which overthrew five churches, and destroyed all the houses in the place.—See *Times*, 17th March, 1841.

It appears that these effects were felt chiefly "on the heels of the eclipse," according to the rules for predicting earthquakes long since published by the editor of this work. It will be seen that on the 25th of January there was a conjunction of Venus and Herschel in the sign *Pisces*, which has especial influence over Calabria, as declared by Ramesey, in the year 1655; and we, finding the Moon join those planets at the time, and Mercury in the declination of Saturn, foretold a violent storm in that part of the world, which took place accordingly, as shown at page 121. And by reference to the "Astrological Almanac," or to page 79 of this work, it will be seen that Venus again aspected Herschel on the 22nd of February, and that Mercury was joined with him in this *same* sign, and that very numerous aspects occurred to the place of the eclipse, Jupiter having reached the exact trine of that place, and Mercury the exact square to him, &c. &c.; also, that the Moon passed the bodies of Herschel and Mercury that day in *Pisces*, and formed many other aspects, all of which powerful influence was concentrated in a focus, as it were, and caused a vast accumulation of electric matter, which in its discharge shattered down the ancient city of Reggio.

On the 3d of April, at half-past 3 p. m., a shock extended all over Jutland. See Mercury stationary, and Mars sextile to Saturn in Scorpio, which rules that land; Saturn also stationary, &c. &c. *See also our prediction*, p. 160.

AURORA BOREALIS WITH AN AURORAL ARCH.

TO THE EDITOR OF THE HOROSCOPE.

Any correct observations that can be made on this beautiful electric meteor by long practised meteorologists deserve particular attention.

I have, during the last twenty-five years, observed some hundreds of *auroræ*, and have never failed, either in winter or summer, to note particularly their progress and varied appearance, until they have re-

ceded to the horizon. The one I am going to describe was rather peculiar, in regard to the length of time the detached arch appeared.

On January 19, 1841, a few minutes before 9, p.m., an Aurora Borealis appeared rising in the north-west quarter, and at 9h. 25m. the glowing light had formed a well-defined segment, which intersected the horizon at N. 70° W. and N. 20° E. nearly, an extent of 90°. In this state it remained as a steady, luminous, yellowish light, of considerable density, till 9h. 35m., and then resolved into a perfect *auroral arch*, which was $1\frac{3}{4}°$ wide, with a clear space in its area to the horizon. At 9h. 40m. two meteors appeared above the auroral arch, and shot westward. Then six columnar lights rose simultaneously above the horizon to about eight degrees above the vertex of the arch; but they soon disappeared, without changing their yellow tint. Several other faint columns rose between that time and half-past ten.

At 9h. 45m., half the auroral arch eastward had disappeared, but the ascending coruscations from beneath the horizon made it perfect through its whole length as before, and the altitude of its vertex in the magnetic meridian was 12°, as determined by *a* Cygni, which star was then nearly on the magnetic meridian, a little within the arch. Its extent was 90° along the horizon, which it intersected at the points before-mentioned. At 9h. 50m. the eastern side of the auroral arch again disappeared, and some part of the western; but it was again perfect at ten o'clock, and then gradually disappeared.

At 10h. 10m. a horizontal segment of light, nearly of the same extent, gradually rose above the horizon to the same height as the auroral arch had gone, and remained as a steady, mild, yellow light till eleven o'clock, when it began to recede slowly to the horizon.

At twelve o'clock, only a very small luminous segment of the aurora remained, and it soon afterwards disappeared. The auroral arch was the most singular and striking part of this aurora, in consequence of its long duration, and the facility afforded for its measurement.

On the following evening, at 7h. 30m., two faint columns of light rose due north to an altitude of 15°, and slowly moved along to N.W. by N. before they disappeared. A faint aurora was just perceptible in the horizon at the time, but the dark sheets of cirrostratus were too much in the way for further observation.

Gosport. J. H. MAVERLY.

N.B. An extensive aurora was seen at Belfast and Dundee on the 22nd of March. In both these cases numerous aspects occur.

WEATHER AND OTHER PHENOMENA IN MAY.

Changes, misty air, and blighting winds. 2nd, small rain, dense air. 3d, warm, close, damp air; probably lightning at night. 4th, windy, hail showers, haze and blight, nocturnal meteors: the fly extensive in the hops, and caterpillars, &c., abound in gardens. Full moon—cloudy, hail, fair at times. 6th and 7th, fair, but showers. 8th, fair, but heavy cumuli; electrical showers and thunder in many parts. 9th and 10th, fair but windy; hail-showers. 11th, warm and

fair. 13th, windy; cloudy, cool air, and much rain prevails to the 15th, on which day some heavy thunder-storms occur in the south. 16th, a change towards night. 17th, drier. 18th, windy, mild rain. 19th, showers. 20th, rain. 21st, windy. 22nd, mild and fair. 23d, clouds. 24th, heat, summer weather—thunder prevails. 25th, cooler. 26th, lightning, meteors, parhelia, &c. 27th, cooler—cumuli, wind, hail. 28th, close and misty, thunder-clouds. 29th, a change, cloudy. 30th, heat, and violent thunder and rain. Close, misty, heavy, unwholesome air the latter days of this month; much blight and influenza exist.

DUNDEE.

AVERAGE STATE OF THERMOMETER AT HIGH WATER AND NOON.

TAKEN MONTHLY.

Months.	1836.		1837.		1838.		1839.		1840.	
	H. W.	Noon.	H. W.	Noon.	H. W.	Noon.	H. W.	Noon.	H. W.	Noon.
	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′	° ′
January	40·30	41·36	32·43	38·40	33·30	34· 7	35·47	37·29	39·10	40· 2
February ...	37·22	38·16	10·53	42·23	31 24	33·26	38·32	40·26	38·32	41· 8
March	40·33	42·31	37·10	42 2	40·44	44·25	38·25	40·13	43· 3	47·42
April	43·16	46·45	41·20	46·26	42·15	45·20	44·57	49·10	48·00	54·00
May.....	52·12	58·00	49·49	61· 2	47· 5	53·52	48·42	54·13	48·22	51·15
June.....	56·34	61·40	58·10	62·56	54·52	59· 8	55·28	58·42	55·50	59·26
July.....	57·20	61·21	60·19	64·55	59·21	63·23	59· 4	63·12	57·37	62·23
August.....	57·17	61 56	57·14	63·30	58·13	61·44	57·28	63·12	54·56	64·46
September..	52· 5	57·12	53·48	57·56	55· 2	58·50	54 47	59·22	52·52	57·12
October....	46· 9	53·30	52·17	57·52	48·52	53·17	50·00	52·23	48·27	52·21
November ..	41· 6	44·44	41·24	44·00	41· 5	43·00	45·14	47·36	43·26	46·00
December ..	38·55	41· 8	43·24	43·54	41·24	43·10	39·31	41·33	39· 1	46·23
Averages ..	46·56	50·43	47·41	52·41	43·38	49·28	47·20	50·38	47·26	51·26

MUTUAL AND LUNAR ASPECTS, &c., MAY, 1841.

1st Day.

♂	QX	♅	7	38	A.M.
☽	□	♃	8	14	
♀	△	♂	0	1	P.M.
☽	☌	♅	3	36	
•	SQ	☉	9	26	

2nd Day.

☽	in	♎	4	1	A.M.
•	P	♅	4	34	
•	△	♀	5	26	
☿	△	♃	7	45	
☽	P	☿	10	24	
•	□	♄	11	31	
•	P	♂	10	45	P.M.

3rd Day.

☽	SQ	♀	7	42	A.M.
•	✳	♃	1	44	P.M.
•	☌	☿	5	57	
•	☌	♂	8	9	
♀	in	♉	10	8	

4th Day.

☿	☌	♂	9	14	A.M.
☽	P	☉	11	4	
•	✳	♄	3	20	P.M.
•	S□	♃	5	9	

5th Day.

☽	S□	♅	1	32	A.M.
☿	S✳	♅	1	45	
☽	☌	☉	2	5	P.M.
•	S□	♄	7	18	
•	P	♃	10	55	
•	P	♄	11	5	

6th Day.

☽	△	♅	5	56	A.M.
•	P	♀	4	19	P.M.
•	☌	♀	4	46	

7th Day.

☽	S□	♂	6	53	A.M.
•	SQ	♀	7	45	P.M.

8th Day.

☿	S✳	♀	1	34	A.M.
☽	☌	♃	6	33	
☉	SQ	♄	7	40	
☽	✳	♂	11	37	
•	□	♅	4	28	P.M.

9th Day.

☿	in	♉	2	5	A.M.
☽	in	♍	5	50	
•	△	☿	6	26	
•	☌	♄	10	46	
☉	QX	♃	11	12	
☽	SQ	☉	3	14	P.M.

10th Day.

☽	SQ	♀	5	53	A.M.
☿	△	♄	11	8	
☿	SQ	♃	9	6	P.M.
☽	△	☉	10	13	
•	□	♂	10	45	

11th Day.

☽	in Apg		3	0	A.M.
•	P	♀	3	17	
•	✳	♅	5	8	
♀	BQ	♂	6	0	
☉	QX	♂	7	39	
☽	P	♄	10	25	
•	P	♃	10	26	
•	△	♀	10	54	

12th Day.

☽	S□	♃	0	30	A.M.
•	□	♀	6	8	
•	P	☉	10	10	
•	S□	♅	11	1	

13th Day.

☽	S□	♄	5	36	A.M.
•	✳	♃	6	34	
•	△	♂	10	17	
♀	P	♄	1	5	P.M.
☽	□	☉	4	21	
•	P	☿	5	33	
☿	S□	♅	6	31	
☽	□	♀	8	26	
♀	P	♃	9	24	

14th Day.

☽	✳	♄	11	18	A.M.
☉	✳	♅	1	43	P.M.
☽	SQ	♂	3	41	
•	P	♂	8	19	

15th Day.

☽	✳	☿	5	7	A.M.
☿	BQ	♃	7	53	
☉	☌	♀	10	41	
☽	P	♅	0	50	P.M.
•	□	♃	5	0	

16th Day.

☽	✳	♀	3	53	A.M.
•	☌	♅	4	24	
•	✳	☉	7	30	
♂	Q	♄	0	0	P.M.
☽	□	☿	2	49	
•	P	♅	3	41	
•	in	♈	4	22	
•	□	♄	8	14	

17th Day.

☉	BQ	♄	5	42	A.M.
☽	S□	☿	6	42	
•	P	♂	7	5	
•	S□	☉	1	13	P.M.

18th Day.

☽	△	♃	0	0	A.M.
☿	SQ	♄	1	9	
•	☌	♂	2	29	A.M.
☿	QX	♃	3	52	
☿	QX	♂	9	16	P.M.

19th Day.

☽	△	♄	1	19	A.M.
•	SQ	♃	1	37	
•	P	☿	1	38	
•	S□	♅	0	45	P.M.
•	P	☉	4	40	
•	P	♀	5	31	
☉	P	♀	11	1	

20th Day.

☽	SQ	♄	2	35	A.M.
•	P	♃	5	57	
•	P	♄	7	22	
•	☌	♀	8	57	
•	☌	☿	11	10	
•	✳	♅	1	52	P.M.
☿	☌	♀	4	48	
☽	☌	☉	11	44	

21st Day.

☽	SQ	♂	5	53	A.M.
☿	✳	♅	5	55	
☉	in	♊	6	58	
☿	BQ	♂	2	20	P.M.

22nd Day.

☽	☌	♃	3	44	A.M.
☿	BQ	♄	5	27	
☿	P	♀	6	0	
☽	△	♂	6	9	
•	□	♅	2	49	P.M.
☿	in	♋	9	22	

23rd Day.

☽	in Peri.		0	0	A.M.
•	in	♋	0	55	
☉	QX	♄	3	21	
☽	☌	♄	3	47	
•	S□	♀	7	21	

24th Day.

☽	P	♃	0	9	A.M.
•	S□	♀	0	53	
•	P	♄	2	32	
•	□	♂	6	39	
•	✳	♀	7	22	
•	S□	☉	9	20	
•	△	♅	3	47	P.M.
☉	S□	♂	3	56	
☿	QX	♄	10	3	

25th Day.

☽	P	☉	2	27	A.M.
•	P	☿	2	34	
☉	P	☿	3	42	
☽	SQ	♃	4	26	
•	✳	☿	5	22	
•	✳	☉	8	27	
♀	QX	♂	9	59	

☿ S□ ♂	2 20	P.M.	
☽ SQ ♅	4 43		
• P ♀	6 36		

26TH DAY.

☽ △ ♃	5 21	A.M.
• SQ ♄	5 45	
• □ ♀	7 50	
• ⚹ ♂	8 25	
☉ ☌ ☿	9 5	
☿ Q ♅	8 1	P.M.

27TH DAY.

☿ P ♃	4 44	A.M.
☽ △ ♄	7 19	
• S□ ♂	10 3	
☉ Q ♄	10 44	
☽ □ ☉	3 10	P.M.
• P ♀	4 10	

☿ P ♄	5 36	P.M.
☽ □ ☿	6 47	
☿ in Perh	10 52	

28TH DAY.

☽ P ♅	7 34	A.M.
• □ ♃	8 56	
♀ in ♌	9 23	
☽ △ ♀	10 26	
• ☌ ♅	10 41	P.M.

29TH DAY.

☽ P ♅	7 56	A.M.
• in ♎	9 29	
• □ ♄	0 0	P.M.
• SQ ♀	0 37	
♂ in ♉	6 54	
♂ direct	8 58	

30TH DAY.

☽ P ♂	0 25	A.M.
• △ ☉	0 43	
☿ ☌ ♃	7 50	
☽ △ ☿	10 33	
♀ SQ ♄	0 2	P.M.
☿ S⚹ ♀	1 46	
☽ ⚹ ♃	2 14	
• ☌ ♂	6 32	

31ST DAY.

☽ SQ ☉	6 24	A.M.
• P ♀	4 27	P.M.
• S□ ♃	5 43	
• ⚹ ♄	6 39	
• SQ ☿	7 49	

THE LAWS AGAINST ASTROLOGY.

TO THE EDITOR OF THE HOROSCOPE.

SIR,—I was very much pleased to find in a former number of "The Horoscope" that you had taken notice of the penal laws relating to Astrology—laws which are a disgrace to any civilised nation. Many of your readers may not, perhaps, be acquainted with the fate of Mr. White, author of a work on Astrology, called the "Celestial Intelligencer." And how will your readers feel when they hear that this Mr. White died a martyr in the cause of this science?

Some years since, Mr. White came to reside in the Isle of Wight, and during his stay there a friend of mine, who was also a friend of Mr. White's, advised him to be very circumspect during that year in giving judgment on figures, as he foresaw from his revolution that he would be in danger of imprisonment. White promised him that he would be circumspect. He was, however, taken quite off his guard, in the following manner:—

Two men entered his apartments, when one of them informed him that he had lost his watch, and should feel obliged to him if he would give him some information respecting it; to which Mr. White answered him, that he could have nothing to say in it. However, by continued persuasion, he drew out a figure, and simply told him that he did not think that the watch was lost, but merely mislaid; but that, if it were lost, such a description of person had it at the present time. "That will do," replied one of the men, and threw half-a-crown on the table, when White replied, "I do not want the money, nor do I make any charge for what I have done." However, in the course of a few minutes, in walked a peace-officer, and took White into custody. And what, sir, should you suppose was the result? Nothing less than that he was sent to Winchester gaol for twelve months, and at the expiration of which he was to be placed in the *pillory*. The poor man's feelings could not bear with this disgraceful sentence; he therefore died of a broken heart, after suffering, I believe, about three months' con-

finement in prison. Now, sir, could you scarcely believe that these two men were sent on purpose to entrap Mr. White, by a magistrate in the Isle of Wight.

The only remark I shall make on the foregoing is this, that it is high time that such a disgraceful and an abominable law was repealed, which places it in the power of any one to treat an intellectual and well-informed man worse than a humane man would treat a brute.

I am, Sir, yours respectfully,

A LOVER OF SCIENCE.

P.S.—This affair occurred in 1813. Of course it was illegal, and the magistrate and his myrmidons ought to have been indicted for a conspiracy.

THE METEOROLOGICAL SOCIETY.

"We apprehend there can be no doubt that the Government is bound, by the duty which it owes to the community intrusted to its care, to assist by every means in its power (and those means are very extensive) the excellent society whose transactions are recorded in the volumes before us."—*Dublin Review*, November, 1840.

We cordially concur in this opinion regarding the valuable and important society whose title stands at the head of this article, and we are sure that if the Government would only assist the society so far as to cause observations of the weather, &c., to be made by the coast-guard at a few important points along the coast, very great advantage would accrue to the cause of meteorological science, which is the common cause of civilised society; for on no science whatever does so much depend in this commercial country as on that which may enable us to penetrate the mysteries of atmospherical phenomena. This is manifest, if we reflect on the consequences of a single failure of the harvest, that failure being unforeseen. It deranges the whole chain of our commercial enterprise. Corn must be sought abroad; and, as we are not regular customers, it cannot be had in exchange for manufactures. Gold must be remitted, and this drains the coffers of the Bank; which, by way of protecting itself, contracts its circulation and curtails its credits. Immediately the prices of goods fall, and there is a discharge of the hands who manufacture them. The fall of wages which ensues comes along with the increased price of bread. Thus, not only the small trader suffers by the shock to credit, but the mechanic feels both edges of this sword of national suffering; and the result is, that general discontent and confusion ensue, increased, if the *winter* be severe, by epidemic and other diseases affecting the general health. These evils occur frequently, but they cannot be foreseen, simply because our philosophers cannot yet foretell whether the harvest will be got in with sunshine and fair weather, or housed in the midst of cold rains and storms. Meteorology alone will enable them to arrive at this important knowledge. If Astro-meteorology be founded in truth (and the exact fulfilment of the predictions of the weather in this magazine during the first two months of the year shows that it is not far otherwise), we may expect speedily to arrive at most important results to this nation on the subject. But those who are most interested in a

foreknowledge of the weather, especially farmers and merchants, ought to support the society of which we are speaking. A few guinea subscribers added to its members would enable it to make generally known the immense masses of information which at present lie fruitlessly on the shelves of its library.

We repeat, that the Government ought to assist in making known the meteorological facts collected from all parts of the world by this valuable society. Hitherto almost nothing has been done for it, even by the press, for reports of its proceedings have been refused insertion by *literary* journals, which devote their columns to those of the Entomological Society, and others of less importance. Yet it behoves the public more to know the causes of rain, and the probable periods when it may occur in excess or be deficient, than to determine the particular shades of colour on all the wings of all the butterflies that ever existed.

We insert the following from the newspapers:—

METEOROLOGICAL SOCIETY.*

ANNIVERSARY MEETING.—Dr. M'Intyre, F.L.S., Vice-President, in the chair.

The Secretary read the Annual Report, which commenced by stating that the society had received an abundant supply of meteorological tables, diagrams, and essays, during the session, both from distant members and other contributors.

The society seems to be making progress, as synoptic tables of all the manuscript tables and essays in the possession of the society at the commencement of the session are published, and were distributed to the members and visitors present. These synoptic tables embrace about three-fourths of the surface of the globe, and extend over various periods of four years, ten years, thirteen years, and twenty years consecutively, and consist of sixty essays on subjects connected with meteorology, and tables from upwards of forty stations, which may be consulted on the second and third Tuesdays in the month, from six to eight, p. m., under the superintendence of the junior secretary. The library will be open at the same time for the use of members; and, though small, it possesses some of the most valuable works on meteorology from the first scientific societies in Europe and America. The report concluded by urging every member to use his individual exertion to extend the objects of the society.

The following officers were elected for the session 1841 and 1842.

PRESIDENT—The Right Hon. Lord Robert Grosvenor, M.P.

VICE-PRESIDENTS—Dr. Birkbeck, F.G.S., &c.; Dr. M'Intyre, F.L.S., &c.

TREASURER—J. W. G. Gutch, Esq., F.L.S., &c.

SECRETARIES—W. H. White, Esq., M.B.S., &c.; J. Green, Esq., M.B.S., &c.

FOREIGN SECRETARY—J. Reynolds, Esq., &c.

OTHER MEMBERS OF THE COUNCIL—H. W. Bailey, Esq.; W. Bateman Byng, Esq., F.R.A.S., &c.; Samuel Luck Kent, Esq., F.G.S., &c.; Dr. Lee, F.R.S., F.R.A.S.; Lieut. Morrison, R.N.; H. Phillips, Esq.; Capt. Sir John Ross, R.N., C.B., K.C.S., F.R.S., &c.; W. J. Simmonite, Esq.; J. G. Tatem, Esq.; Geo. Leach, Esq.

* No. 20, Bedford-street, Covent-garden.

BOTANICAL SOCIETY OF LONDON.

APRIL 2.—THOMAS TWINING, ESQ., IN THE CHAIR.

Dr. John Shotsky communicated a paper "On the genus Eucaluptus, and its connexion with the vegetation and the physical features of New Holland."

The author commences by stating, that if the traveller were to look down from the heights of some of the mountains of New Holland, nothing but foliage of a pale hue would be apparent. He proceeded to state, from the result of some years' residence in the colony, that the peculiar features of the country were influenced by the singular nature of the woody fibre of the Eucalypti, as, by its decomposition, but little vegetable mould or *humus* is produced, and which, in his opinion, is the cause of the barrenness and almost sterility of the underwood, or brush-wood, between these trees, situated some little distance from each other.

Their fibre is short, brittle, and full of resinous matter. Tannin, one of the chief ingredients in *humus*, is here but in a very trifling proportion, and he attributes the open character of the Australian forests, generally compared to our parks, to its absence. These forests receive but a trifling quantity of rain during the year.

Dr. Shotsky then dilated on the influence which the Eucaluptus exercises on the character of its chief inhabitants, both of man and animals. The wild animals seek shelter from the heat of the day in the hollow stems of these trees, which, from the peculiar character of the woody fibres, easily and soon decompose. The natives procure a large portion of their food by setting fire to the trees at their base, and ascending their trunks, they capture the animals as they are about to exit from the holes in the hollow branches.

REVIEWS AND NOTICES.

Practical Observations on the Causes and Treatment of Curvatures of the Spine. By SAMUEL HARE, Surgeon. London: Simpkin, Marshall, and Co.

[SECOND NOTICE.]

There are several valuable truths scattered through this volume, which are evidently the result of an experienced mind. Among the subjects most generally interesting, we were much struck with the remarks "on inattention to the general health;" for there can be little doubt that ignorance on this subject is one of the most unfailing causes of a feeble state of body, and a brief state of existence. If the frame be weakened by injudicious diet, and lack of proper supplies of oxygen, where alone it can be had pure, in the open air, we need not be surprised if but a slight train of anaretic directions to the *hyleg* be sufficient to terminate existence, whereas, when the frame becomes robust and healthy, by recourse to the modes of living so ably pointed out by our author, it will require a very powerful train of evil aspects even to

bring the individual to the borders of the grave. We need make no other remark to induce our readers to peruse the following observations:—

"It has already been remarked that the subject of health, although of such vital importance, is but very imperfectly understood by the majority of mankind. If this be correct, it follows that many may be so far mistaken as to think themselves in a state of good health, when they are at the very time the unconscious victims of disease. Allusion is not here intended to be made to maladies of the more latent kind; these may escape the observation, not only of mankind in general, but sometimes even of those whose province it is more particularly to study their nature and mode of attack. Such is the almost general ignorance that prevails in society upon subjects of *hygiene*, that even diseases of a more palpable nature often exist without so much as being suspected. To the customary inquiries after health, it is far from being unusual to hear the reply, 'very well,' proceed from persons in whose countenances the eye of the experienced practitioner would detect indications that disease was progressing—was silently, but certainly, conveying the destined victim to a premature grave. There is something affecting and melancholy in such considerations, which loudly proclaim the advantage to be derived from some knowledge of these important subjects."

The author afterwards offers these queries, as a test of the true sanative condition of an individual:—

"Is the body active, the step nimble and elastic, the tongue moist and clean, the skin clear, and the eye bright? Is the appetite good? Does considerable exertion produce but slight and temporary fatigue—is that fatigue soon dissipated by rest, and vigour restored to the frame? Is the sleep sound and refreshing, and does the individual arise from his repose disposed, with lively pleasure, to commence the daily avocations of life? Are the various functions of the animal economy—circulation, respiration, digestion, assimulation, secretion, &c.—carried on imperceptibly, and consequently without annoyance? Are the spirits lively and buoyant, the mind composed and cheerful? Unquestionably, these are unequivocal signs of health."

To obtain this treasure we must refer our readers to the work itself, which is eminently simple and practical. But we cannot refrain from expressing our regret that there exists no book to teach *children* the constitution of the human frame, and the true art of attaining and preserving health. The habits and the constitution of other animals are taught the young, while their own case is neglected. Hence flourish doctors and grave-diggers.

EPIGRAM.

INSANIENS SAPIENTIA.

ΒΡΟΥΤΟΣ μωροσοφως ποτ' εμαινετο—και τοδε κερδος;
ΤΗΣ δ' ενεχ' αυτοφονω! νυς γε τοτ ορθος ενην.

Aliud.

Tres pariter docti, dulci insanire Lyceo
Hospitium veniunt, ingeniisque vocant:
Non pariter sapiunt; prodit ratiuncula, nummis
Hic caret, alter abest, fit reus ille trium.

WESTMONASTERIENSIS.

J. Cunningham, Printer, Crown-court, Fleet-street, London.