

# Modern Astrology

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## Descriptions from the Rising Signs

### GEMINI. THE TWINS

*"Animal man is the son of the animal elements out of which his Soul was born,  
and animals are the mirrors of men."*

SURELY there is some profound mystery connected with those signs of the zodiac in which there is no apparent correspondence in the animal kingdom. Gemini, the sign under our consideration for the present month, is one of those signs belonging to the airy triplicity which is more directly connected with the human side of life than the animal world. For the first time in this study we shall now have to supply the missing (animal) link; if indeed there is any animal influence in the nature of the sign Gemini, which the superficial enquirer would be inclined to dispute. But we are in search of the truth with these rising signs, and it is our business to carefully consider the matter.

It is generally agreed that Gemini is a refined and intellectual sign, but its refinement is more often a matter of external culture and education than innate. Although it may perhaps sometimes penetrate to the internal part of the nature, in a general sense it is a sign closely related to the lower mind—that is, the active, personal mind, and is chiefly concerned with educational pursuits. In the occult teaching there is much distinction made between the lower and higher mind,

but they are practically two aspects of the same mind; one leaning toward the concrete and objective side of consciousness, and the other to the subjective and ideal state. It is in this suggestion that we may obtain some insight into the reason why the sign Gemini is represented by "The Twins." If we were seeking for a representative in the animal kingdom for the lower types of this sign, we should be forced to admit that the Ape is the form after which one of the Twins should be moulded. We believe it has already been said that the Ape is a parody on man, and this especially in its imitateness. The ordinary Gemini man, whose human soul is unawakened, will plagiarize and imitate with an audacity that is ape-like to a degree. We see in our day a fair illustration of the concrete Gemini quality, in the popular and worthless literature with which the western world is flooded, which is quite foreign to the scientific accuracy which characterises the higher types of this dual sign. We find, with regard to intellectual development, two great extremes in the sign Gemini, from the lowest cunning, trickery, and sharp-practice, to the inventive origination of ideas and the skilful, legal or scientific ingenuity.

The illustrations for this month may shock many of those born under the sign Gemini, but those in whom intelligence is more active than mere brain intellect—and there is a wide difference between these—will know to which of the Twins they belong; those who have not this intuition may take heart by the knowledge that if their intellect is of the superficial order they may cease to be the "chattering ape" by aspiring to become self-knowers.

Our artist has not over-drawn the facial illustration of the ape-like man, for we are cognisant of several persons born when the rising sign was Gemini, who bear a very striking resemblance to the monkey; and there are some amongst them who prefer to have a likeness to the monkey than to the ram, or bull.

It is certainly true, so far as form is concerned, that the ape is nearer the human than the animal kingdom, the mode of locomotion of the latter being extended to four legs instead of two.

The accepted description of the sign Gemini is as follows:

A tall and erect figure, with very long arms and fingers, smart and active in motion. Dark sanguine complexion, hazel eyes, that are very bright and alert; dark hair. The face is more long than oval, the nose and chin prominent.



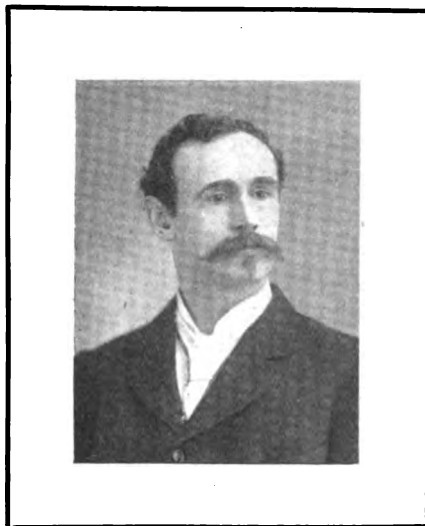
From one root-type spring a multitude of forms. The forms may differ one from another; numberless "conditions" continually pressing upon them will bring about modifications of the original type; but all these differences and modifications take place, and can only take place, within certain limits of variation. Between these limits you may strip off from each form every detail wherein it differs from its fellows and there will remain a certain fundamental design, as it were, upon which all this variation has been grafted. This design, or root-type may, it is considered, be traced not only in the kingdom of man, but in the less advanced animal kingdom, there



being an occult connection between the two now apparently separated evolutions not yet cognised by science.

Astrology claims that there are twelve such types, and in the representations given above it is endeavoured to trace the animal correspondence, in human kind, of the quality and form associated with the zodiacal sign Gemini.

The subject whose photograph is published this month, was born when the early degrees of Gemini were rising. He possesses a wonderful amount of general information, and in his own peculiar way is remarkably clever. He is an author and a speaker, professions that delight the Gemini disposition, literature and writings of all kinds being their chief pleasure.



There can be very little doubt that Gemini is a humane sign, and there is latent in it all the germs of mind that are to be vivified sooner or later by the experiences obtained through the activities of the mind. It is only when the mind is perverted that Gemini becomes an evil sign, trickery, fraud and deceit being then practised with an ingenuity uncommon to the other signs. Whatever tendencies there may be, corresponding to those of the Ape, in the persons born under the sign Gemini, it is certain that they are always inclining toward refinement, and tend to live more in the mind than in the senses. Without much fear of error, we may say that when the Gemini personality becomes degraded, it is usually that the mind has been ensnared by the senses; and the Gemini mind is one that is often conscious of its depravity, the perversion being often wilful, and marked by monkey-like cunning and deceit.

## The Political Outlook

IF proofs were necessary as to the truth of astrological prediction, the world has now abundant evidence, from the successful prophecies already published in this Journal.

In the January issue of the present year we published the following: "If the Transvaal War is not brought to a definite crisis by the middle of May, either arbitration will be necessary to end it, or the war will continue for many months longer, probably until September."

At the time of writing, Great Britain is still engaged in warfare with Africa, but from the position of Mars in the sign Cancer during this month the British should gain their final victory, and thus bring the weary warfare to an end.

What a remarkable lesson the modern astrologer has obtained from this protracted struggle. It has taxed the strength of England for nearly twelve months to cope with the Boers and this owing to the fact that the planet Mars is weak in the sign Cancer, the sign of the zodiac presiding over the destinies of Africa. Had our rulers a grain of faith in the stars in their courses, they would, more early, have learned the difficulty of the task they had undertaken. But there may be some wise providence behind all the trouble in Africa, for there is now the probability of very grave developments in China, another country ruled by a sign in which the planet Mars has no dignity. England has no more to gain by an interference in Chinese affairs than she has in this critical war in Africa.

It does not require much astrological foresight to know that we are on the eve of very grave and serious events, and quite apart from any knowledge of the stars, the ordinary man in the street is aware that we have reached a very critical epoch.

We are inclined to think that the astrological cause for much of the stirring events occupying the public mind at the present time may be traced to the total eclipse of May 28th, which took place when the Sun was in the first decanate of Gemini. The sign

Gemini is a human sign, therefore troubles falling upon humanity might be expected. Those who are familiar with the teachings of the ancients with regard to eclipses are aware that this decanate of Gemini is concerned with religious matters, and it is said that an eclipse falling in this decanate stirs up hatred and seditions, bringing a contempt for both law and order. We can understand this when we know the nature of Mercury is to produce internal changes, and its relation with the minds of men ; and we see its effect in the condition of China at the present time.

The eclipse of last May was especially dire in its influence upon China, and this influence will be felt until the beginning of the coming year. The new Moon of May 28th took place when the sign Libra arose, the ruling sign of China, a fact which those who are dealing with Mundane Astrology in this magazine overlooked.

Coming events cast their shadows before, and on the 25th of May outrages were reported in China, and a strong feeling against foreigners. On June the 4th there is rebellion in China and a reign of terror in Tientsin, Pekin isolated, and from that time onward the troubles in China have spread, as all who read the newspapers are aware.

It was our intention to have studied the political outlook very carefully, and in response to our appeal, when writing "What of the Year," a subscriber has kindly tabulated the events as they happened to save us the trouble of wading through the various newspapers, but illness prevented our giving attention to the matter, and for a time it was dropped, but we hope to now carry out our original intention.

The point from which all students of Mundane Astrology should start, is the close of last year, when the majority of the planets were clustered together in the sign Sagittarius. In more ways than one, the solar ingress at noon on November 22nd, was the most important mundane figure that we have had for many years, this being the figure preceding the close of a great cycle, and since then we have had wars, and rumours of wars, the ultimate of which will be the greatest war known in our history. That cycle came to a close with an eclipse of the Sun, when the luminaries had just left the first decanate of Sagittarius, signifying great upheavals of the world's thought, and preparations for a new order of things. It is somewhat remarkable that the maps for the first and last quarters of 1899

show the sign Libra rising, and the eyes of all nations have been turned toward China, the country ruled by this sign. The cardinal signs have been the most active recently, and are likely to be so for some time to come. England, Africa, China, and India are represented by these signs. In the map for the spring quarter of the present year the cardinal sign Capricorn is intercepted in the ascendant, the same sign rising again at the summer quarter.

Mr. H. S. Green, in his remarks on the map for the spring quarter, does not under-estimate the seriousness of the outlook; he therein predicts the death of some very eminent person, probably in the ranks of royalty, which has been fulfilled in the death of the Duke of Edinburgh, who was born at 7.50 a.m., August 6th, 1844.

Last year we made the successful prediction that the climax of 1899 would be a great war. This year we call the attention of careful students to the new Moon of November 22nd, and that of December 22nd; the latter is also, practically, the figure for the winter quarter. These two figures indicate a climax, after which that of last year will sink into insignificance. Note the elevation of the planet Mars in both cases. If the British Government had but the slightest knowledge of the stars in their courses, they would use all the diplomacy possible to keep out of the universal squabble that we are about to be plunged into. England has very little to gain by interference in Chinese affairs, and much to lose. It is quite time that England recognised that she is governed by the planet Mars and the sign Aries, and therefore is the leader of the world, and the example of peace should be chosen to that of war. Her chief concern in the future should be home defence and not foreign attack; to be involved in the great war that is approaching, would not be wise at the present crisis. The opportunity of France will arrive, the critical moment which she has waited for so long is at hand, and the great struggle of the nations is about to commence. We advise all students to make a very careful study of the last map of the present year, and note the position of the planet Mars. Some of the recent prophecies have aroused the attention of the press, judging from the following, which appeared in the *Mail* of August 2nd:

#### PROPHETS WERE RIGHT

“People who are fond of listening to the ‘voice of the stars,’ and others who are prone to ridicule the prophecies of the astrologer,



will be interested to learn that two venerable soothsayers—*viz.*, Zadkiel and Old Moore—have in their separate publications faithfully predicted the sorrowful events of the past few days.

"In 'Moore's Almanac' for the present year we find:—'July.—A foreign potentate will be in danger this month'; while for August the prediction contains the sentence: 'The nation will have cause to mourn.'

"'Zadkiel' foresaw deep grief for our Royal Family in the first half of last month, but the forecast for the present month contains the following remarkable line: 'The King of Italy is plagued by insidious foes, and should beware of Anarchists.'"—*Mail*.

In the mundane articles for this month Mr. Heinrich Däath introduces a composite map which should be very useful to students. Next month we shall have more to say about the political outlook.

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### Student's Corner

DEAR SIR,

Please explain or comment upon the following:

1. What astronomical or astrological phenomenon does the Roman author (Tacitus I think) allude to when he speaks of the "last rays of the setting sun continuing so bright till its rising as to obscure the stars?"
2. Did the ancient Greeks ascribe any rain-making properties to Jupiter?
3. What is the meaning of Urotal? Is it applied to some astronomical body?
4. What testimony exists as to Osiris being synonymous with Bacchus and the Sun?

Yours faithfully,

DELTA.

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### AIRSHIP'S TRIUMPH

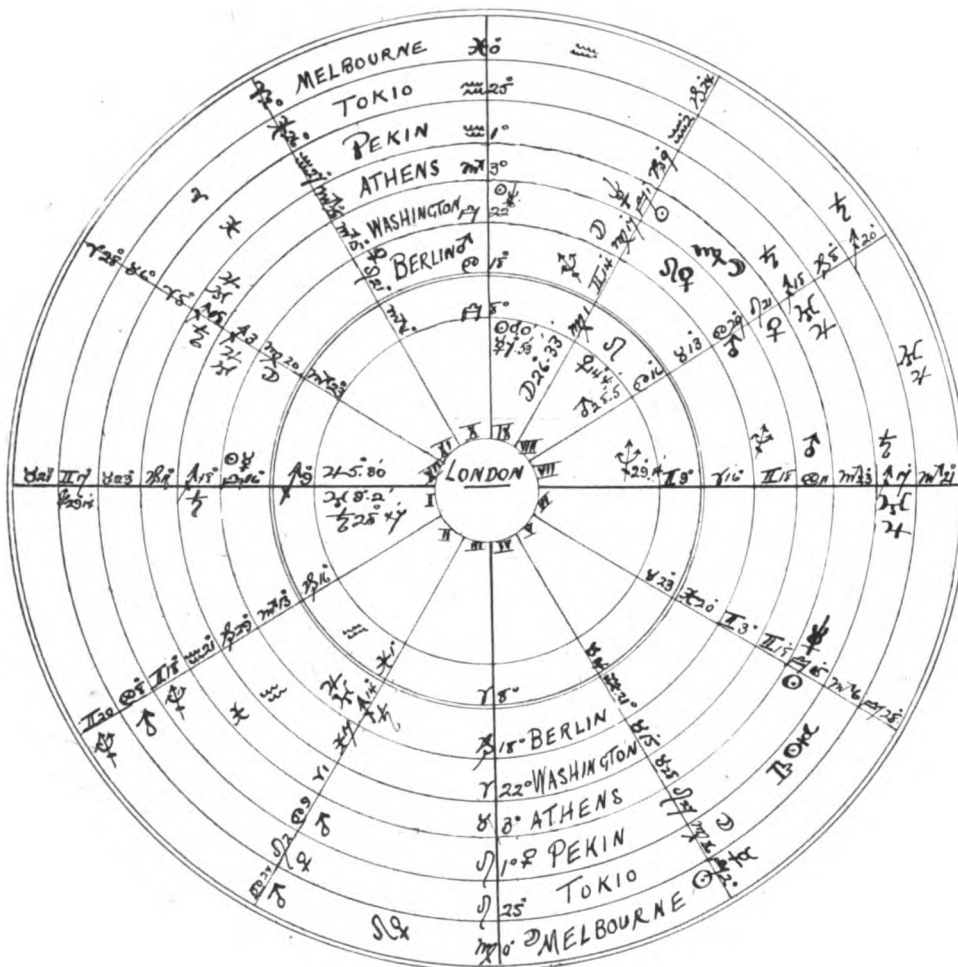
*Flight of 35 Miles Achieved in Germany. An Epoch-making Event.*

FRIEDRICHSHAFEN, Monday, July 2nd.

COUNT ZEPPELIN's aerial ship ascended from here at about eight o'clock this evening. Those taking part in the first trip were Count Zeppelin, Baron Conrad Bassus, Herr Eugene Wolf, Engineer Burr and Mechanical Engineer Gross.

The ship travelled safely to Immenstadt, thirty-five miles from here, and landed all well.—REUTER.

# Concentric Composite Map for Sun's Entrance into Libra



☉ enters ♎, September 23rd.

London	19min.	35sec.	p.m.	Athens	1hr.	55min.	p.m.
Washington	6hrs.	48min.	a.m.	Pekin	8hrs.	6min.	p.m.
Berlin	1hr.	13min.	p.m.	Tokio	9hrs.	40min.	p.m.
		Melbourne	9hrs.		59min.	p.m.	

N.B.—The above scheme shows at a glance the relationship between the several maps for the various capitals, the difference in the cusps of houses, and mundane places of planets. The exact degrees of planetary places have only been inserted for the central London map, since they remain the same in the others, and can easily be referred to.

## September Ingress and Lunation

*London.*—This scheme is noteworthy from the positions of ♃ and ☿, exactly rising and culminating respectively. The figure is by no means all that could be desired, the balance being certainly on the evil side. Both luminaries are doubly squared by ♁ and ♄ and by a ♀ of ☿, but to make up for this they have the ♀ of ♃, while the Sun itself has similar rays from ♀ and ♃. These two latter planets are rising—indeed ♃ is exactly on the ascendant, while three malefics possess the Eastern and Western houses, and practically no less than six planets are angular. The outline is somewhat allied to the vernal ingress, and it is remarkable that upon that epoch the ☉ and ☿ were in exactly opposite degrees, and nearly opposite mundane positions to what they hold in the present scheme.

The Government, as shown by the tenth house is in good odour, although beneficial changes are indicated. Mercury in tenth ♀ ♃ and ♀ shows a stir to be imminent. The tenth seems too strong to anticipate dissolution, but we must note the ☐ of Sun and Saturn which looks ominous, and in fact at the present time of writing there is a statement in the papers to the effect that dissolution will take place in October. Government is at all events occupied with most important matters. It works quickly, smoothly and satisfactorily. Important Bills mooted and many changes occur. The rising ♀ signifies that the nation will be prosperous on the whole. Its affliction by ♃ will not be disastrous, but yet may induce some strikes and dissatisfaction among the people; such, however, will be amicably settled. More is to be feared from the location of ♁ and its squares to the luminaries, which will cause things to drag considerably. Foreign affairs are involved. We are hampered and restricted abroad. The sextile of ☉ and ♃ will extend our possessions and favour military prowess, but peace is not yet. The volunteer movement and enlisting are popular.

The position of ♄ favours the development of psychical religions, and the study of the occult. The publication of important works on

such religions and studies takes place, as well as upon hygiene, horticulture, etc. A new prophet is likely to be heard of. There is an outcry against the crime of vaccination. Round the coast there will be some bad weather attended with wreckages and loss of life. Merchant ships are mostly involved. Bowel diseases break out during voyages. Travelling will be frequent and attended with risk. In the foreign postal service there will be reforms.

Suicide this quarter will be very much on the increase. Self-motivated criminal acts as well as violent outrages, murders, Anarchism, etc., will be too common, and follow each other in quick succession. There is an epidemic of deaths from martial causes and diseases. A great proportion of deaths will ensue from drowning and the dreaded cancer. Titled and prominent persons, especially women, are shown to change their world during the rule of this map. Ship-owners and musicians pay the debt.

Neptune afflicted in the western angle shows no cessation of our difficulties abroad. This planet is in the extreme part of Gemini and on the eve of quitting it for Cancer. It is certainly manifesting itself in a variety of ways, and now South Africa can expect to feel the full influence of its *lichtsrahlen*, since it is entering upon the ruling sign of that portion of the world. It is quite possible that ♄ rules China too\*, and not Libra. If so, the recent outbreaks in Cancer-lands are traceable to similar causes. On one plane the religious and psychic instincts will be aroused amongst ♄ places and people now that ♀ sets foot in this sign, on another plane baser and fetish-like qualities will be to the fore. The Chinese difficulty with the Boxers is merely a clash of religions, both false and both doomed to annihilation in the near future. Probably ♀ will have more sympathy with ♄ than ♀. There are more facts to comport with the idea and to warrant such a conclusion. We can at all events consider its power now at an end in Gemini. The stars have been forewarning us of revolutions which will agitate the whole world; the rude and uncultivated nations who cannot progress, drawing war upon themselves from the more civilised. It is a reckoning time and out or the clamour and clash is going to evolve the first peace of the new æ dispensation. We are retiring from the old fish (♊) regime. A

\* The transit of ♂ through ♄ will, before the appearance of this in print, have helped to demonstrate what truth there is in this supposition. Since writing this I hear that "Charubel" subscribes to the same opinion.

new Messiah will presently be incarnated or revealed. Christ taught love. This one will inculcate wisdom.

To resume. The nation is disposed to hear lectures, speeches and scientific disquisitions and demonstrations. It is prepared to consider new tramway and railway schemes and all kinds of electrical engineering and lighting. There is a great desire for justice. Merchants and mercurial persons and things are prominent and do well, advancing themselves both in fame and position. The people read and study extensively this quarter. Assiduous care is taken over minute matters. A capacity for taking pains and exercising discrimination is evident.

The weather is likely to be cold, the elevation of ☿ will contribute breezes and the rising ♃ and ♀ threaten electrical and sudden storms and a dull and cloudy atmosphere.

*Transits.*—Mars will transit the whole of ♈ and part of ♎ before the brumal solstice. His passage will embroil France and other countries under ♈, and later Turkey and those parts under ♎. Saturn continues his weary journey through ♏ troubling India and Greece. Jupiter in ♏ keeps peace in Spain.

*Washington.*—The map exhibits 16° ♈ rising and ♄ in eleventh. The latter position is fateful for the President and the Government. Determined measures are adopted. A warlike attitude is engendered. The Criminal Code suffers revision. Prisons, hospitals and asylums receive attention in the matter of hygiene and food. The female sides of such institutions are particularly under notice. Art and science are advanced. There is an increase of taxation and a tendency to rush into war. Travelling is responsible for a crop of accidents. Mental telepathy and esotericism make headway and new exponents arise, as well as a shoal of new papers devoted to the subjects.

*Berlin.*—Here 18° ♏ rises with ♀ close to the cusp of ascendant. It is mostly similar to the London figure except that ♃ and ♀ are removed from the first house and ☉ and ☿ from the tenth. Jupiter and Uranus in twelfth, will cause investigations to be made in the matter of prisons, etc. The influence of ♀ will be more powerfully exerted than in our own country. The navy is likely to receive additions. Germany, however, hardly has the kind of seaboard for an Emperor who desires to make his country a great, or *the* great

naval power. The Kaiser's eye *will* wander to the Holland coast line. The death rate is very high, eminent military and other personages give up their tickets at the door and pass out from the world's fair. Suicides are frequent, and murderous attacks too. Secret and Anarchist societies give trouble. Much of what was said under the London figure will apply to this also. The Kaiser is in danger round the 10th of September, and the Czar round the 20th of December.

*Athens.*—Mars in the descendant angle warns Greece to expect a warlike tone in the nation if not some actual hostilities; there is great mortality among women and children, and generally much sickness in the state. It is an important quarter for publishing, travelling and religious contention.

*Pekin.*—The Society of Heavenly Harmony is at the present time of writing (July) making some pleasant music in the Celestial City, but we think on the whole a more decisive state of affairs will set in upon the September equinox. That will give  $\text{♂}$  time to get out of  $\text{♄}$  and enter  $\text{♎}$ . The map for the vernal ingress at Peking shows the fiery planet on cusp of 11th square ascendant, rising  $\text{♍}$  and setting  $\text{♊}$  and  $\text{♈}$ . Saturn is on cusp of 8th  $\text{♄}$   $\text{♅}$   $\text{♆}$ . The elevation of  $\text{♂}$  afflicted indicates the uprising of Boxers, while the location of  $\text{♈}$  and  $\text{♊}$  on the 7th suggests the connection of the outbreak with religion.

In the present map the exact opposition place of the  $\text{♎}$  at vernal equinox rises;  $\text{♈}$  and  $\text{♊}$  still occupy 7th but not afflicted;  $\text{♂}$  however, is in the lower meridian, threatening the Government with dire calamities, divisions, turbulence and strife.

*Tokio.*—Similar in outline to the Peking-Aries map. Mars on 3rd bodes ill for peace with neighbouring nations, but the presence of  $\text{♀}$  in that house is more reassuring. Yet too much cannot be expected of it as a corrective against  $\text{♂}$ , for it is in close  $\angle$  with  $\text{♄}$  and  $\text{♎}$ . Uranus close to 7th house cusp and  $\text{♁}$  in 7th are not favourable to a state of peace.

[illegible]

The new Moon occurs on the evening of same day as ingress (at London), and is practically a reversal of the ingressal figure with regard to the ascendant. Mars is just entering the 4th house. We may, therefore, look for powerful opposition against the Govt. It is this position, in connection with the ingressal  $\odot \square \frac{1}{2}$ , which will bring about dissolution of Parliament if it occurs at all. All depends upon how far the equinoctial scheme is able to over-ride the lunation. Agricultural affairs receive an impetus, but rick fires, farm incendiarism and damage to crops, farm and other buildings by lightning are prevalent.

HE that values his mind and the worship of his divinity before all other things, need act no tragic part, laments under no misfortune, and wants neither solitude nor company ; and, which is still more, he will neither fly from life nor pursue it, but is perfectly indifferent about the length or shortness of the time in which his soul shall be encompassed by his body.

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## Observations

### II.

BY ALBERT KNIEPF (HAMBURG)

(Continued from MODERN ASTROLOGY, July, 1900)

3. IN mundane Astrology the figures used are those for the four quarters, the new Moon, full Moon, and the eclipses. But I have found that the horoscopes for the Sun's entry in every one of the twelve signs are also of great influence, so that we may use in future eight figures more for the year, each sign producing an influence over thirty days. The figures for the new Moon and full Moon are not sufficient, because the reciprocal positions of the lights are not variable.

I could give many examples. For the reverses to the English army in South Africa at the end of October and in November, 1899, we find in the horoscope ☉ in ♎, calculated for Greenwich ♄ closely in and to the Medium Coelum. The English Government was severely criticised abroad at the time.

At the end of May and in June of the current year almost all the newspapers of the continent of Europe were engaged in spreading an interesting article concerning the Parisian palmist, *Madame de Thèves*. The people were greatly stirred up by the prophecy of this celebrated palmist that a great international European war would come about within five or six years, the strange omens of which event Madame de Thèves was said to have read out of the hand lines of many military men, and of men between twenty to thirty years of age. Now we find the aspect for this predicted and its international spread in the horoscope ☉ in ♈, May 21st, 1hr. 0'50" p.m. at Greenwich, wherein the ♄ 25°53' forms an exact  $\Delta$  to ♀ 25°42' ♈.

A good proof to me is also the figure ☉ in ♈ April 20th, 1hr. 27' p.m. at Greenwich with ♄ ☿ ♄ in ♈ in the fifth house and ☐ ☿ and ♄ in ♈. I predicted to several persons by letter the collapse of a building in the exhibition at Paris (this exhibition generally belongs to the fifth house, theatre, etc.), which prediction was fulfilled on



April 29th. The political world was also much disturbed by the bad news from China.

♄ ♂ ♃ near the Medium Coelum of the world-horoscope, namely near the first degree of ♊, afflicts politics heavily and now ♄ is stationary for three months near this Medium Coelum. This influence will be so much the more obnoxious, as this malefic planet has the opposition of ♃ and the parallel of ♄. Whenever this parallel or the conjunction occurred in the nineteenth century, wars, seditions, and great political changes were always to be observed. In the figure for the winter quarter 1900 to 1901, we find again the ☉ near ♃ ♂ ♄ in ♈; and no less that four planets near the first degree of ♊, namely ♃ ☉ ♄ and ♄, still announcing great political excitement for that time. There will come about a new grouping of the powers.

A bad solar figure will be the next ☉ in ♏, July 23rd, 3hrs. 24' 40" p.m., at Greenwich, with ♂ ♂ ♃ in ♐, which conjunction is elevated and in the tenth house for West Europe and in the seventh for Pekin, for Berlin the ninth house. It is bad for railways, shipping, indicates fires and in diplomacy discords are to be feared; we shall hear nothing good from China. At Pekin a massacre is probable in the end of July.

The following figure ☉ in ♏, August 23rd, 3hrs. 14'52" p.m., at Greenwich, also shows a pregnant aspect in so far as ♂ will be in conjunction with the ♃ in the thirteenth degree of ♏ and ♄ ♄; this is good for science in every way. At the time of this figure the congresses of Psychologists and Occultists will take place at Paris. Diplomats will be at work with some success, but the figure shows for England ♄ in the first and ♂ in the seventh house. China will probably have some protection from Japan.

In these Mundane horoscopes for the twelve signs the ☉ is the significator, therefore they are especially important for governments, monarchs and all authorities, and should not be neglected. The figures for the strongest aspect of the ♃ to the ☉ may be important, but they do not contain all the elements of mundane events.

I further wish to draw attention to the position of ♂ in the horoscope of the summer solstice; the fiery planet being 26°5'8" only 2° distant from the cumulus of Pleiades, indicating these disasters in connection with a multitude of people. The terrible fire at New

York harbour, June 30th, with so many victims of life and the loss of some great German liners is probably due to this position of  $\gamma$ . At the same time of the fire the German nation was painfully surprised by the news of their ambassador at Peking being murdered. These two events are indicated by the position of  $\gamma$  in the summer solstice  $26^{\circ}8$  in  $\gamma$  to the  $\mathcal{D}$  Radix in the horoscope of our Kaiser, whose aspect  $\Delta \gamma$  from watery signs signifies his great naval interests.  $\gamma \mathcal{D}$  brought war.

The German ambassador to China, *Knipert von Ketteler*, was born 1853, November 22nd, with  $\odot \gamma \mathfrak{h}$  and  $\mathfrak{h} 28^{\circ}8$  in conjunction with the *Pleiades*, which denotes according to an ancient rule, death by a tumultuous crowd.

In the figure for Sun entering Leo (July 23rd, 8.36 a.m. at Greenwich) the particular constellation was Mars  $18^{\circ}6'$  Gemini, conjunction Moon  $22^{\circ}$  of same sign, for which the events until to-day, July 30th, have given innumerable proofs.

The press was full of sad news from China, we heard of fresh terrible massacres of missionaries and thousands of Chinese Christians, while the notification concerning the Europeans and ambassadors at Peking brought no satisfaction. The diplomatic note from the Emperor of China to the Powers has met with rough refusals. The above named constellation was falling in the seventh house for Peking. Two serious railway collisions in Germany, July 24th at Celle and July 25th at Dortmund, were remarkable, in both cases an express ran into a goods train.

The startling event under the reign of the above fatal mundane horoscope was the assassination of the Italian King Humbert on July 29th. It is a direct proof of the effect of the figure, that on this day Mars was passing the place of the Moon from July 23rd, *viz.*,  $22^{\circ} \Pi$ . The King of Italy is stated to have been born March 14th, at 10.30 a.m. In that case the ascendant falls in the 23rd degree of Gemini, and therefore in the place of the fatal transit of Mars! The conjunction of Mars and Moon in Gemini might also have produced a considerable reversal for President Krüger, as the Moon  $22^{\circ} \Pi$  was in conjunction with the radical Saturn ( $21^{\circ} \Pi$ ), Saturn being besieged by Mars and Moon in the figure for Sun in Leo.

The conjunction of Mercury and Moon in the 13th degree of Leo in the next solar horoscope (Sun in Virgo), will have remarkable effects in the scientific world, and probably also for the diplomatics; some ambassadors may have narrow escapes. But China will be in invincible difficulties, as Uranus is in conjunction with the seventh house cusp at Peking.

## A Subject of Mars.

### VI.

IN person the native will be of middle height, broad-shouldered and big-boned, but with a small head, square-shaped and hairy, a high forehead with the hair growing very far back. The face is round but the chin is projecting and rather massive, and the jaw is nearly always strongly developed and often square. The cheek bones are very apparent, and the cheeks themselves hollow. The mouth is large, the upper lip thin and compressed, the lower lip somewhat larger and fuller.

The nose is short and aquiline with open nostrils, and over the bridge of the nose are several short upright wrinkles, the result (in persons of the choleric temperament, which is that of Mars) more of knitting the brows in sudden anger or irritation than in concentration or study. The skin is hard and dry in texture and red in colour, a deeper red close to the ears, which are set straight and rather high up on the head, but do not lie very close against it; they are long shaped. The eyes are either grey or red-brown and are large, round, very wide open and have a bold, fixed glance; the white of the eyes of those born under Mars is frequently bloodshot. The eyebrows are very bushy and lie close to the eyes, but are so short as sometimes to stop half way over the eyes. The hair is coarse, very curly and red or sandy in colour, but the colour is somewhat modified by the sign rising at birth; in watery signs such as Aquarius, Pisces, the hair is not so fiery and in earthy signs as Virgo, Capricorn, it is inclined more to chestnut or red-brown, and hair of the latter colour adds force and power to the character given indications of strength in the other features. In art, it gives sense of colour to painters, power and originality of composition to musicians and eloquence and graceful expression to poets. In a man the beard is short, thick, and of the same red colour as the hair.

When well-dignified the qualities given by the planet Mars comprise courage, confidence, ardour, resolution and integrity. The native has an energetic, easily irritated nature and is petulant and very domineering. He is hot-tempered, jealous of honour and

passionately devoted to field sports. When ill-dignified Mars gives cruelty and cowardice and want of self-command, and such qualities as go to make a boastful tyrant, ungracious in speech and manner.

The planet Mars is dry in nature and is situated beneath the sphere of Jupiter. He possesses the choleric or sanguine temperament. A person with blue eyes having greenish tints in them and in which a sudden red light appears when their owner is angry, is certain to be found possessed of the sanguine or choleric temperament and where these red lights are apparent in the eyes it is a sign of the dominant influence of Mars. The old mystic Jacob Böhme counsels such as are possessed of the choleric temperament in the following words:—"He must above all things exercise himself in humility, for this complexion has a native lustre of its own, but is commonly void of mildness unless it have Venus in the ascendant." In the latter union the choleric temperament is moderated by the influence of the lymphatic.

Those persons with Mars strong in their nativity are frequently materialists. During their life when Mars is powerful in the nativity, evils of a strong and sudden nature appear, such as accidents, sudden death, quarrels, but Mars well placed in the part of Fortune gives military command and courage and success in battle. Fingers shorter than the palm and with spatulate tips indicate the influence of Mars at birth.

Mars rules the head, face and throat; he gives diseases of the throat, fevers and all ailments arising from too much heat of blood; and danger of scars and wounds in the head and face. He causes death from smallpox, hæmorrhage, suicide; and burns and wounds from iron, which metal he rules.

The line of Mars has its place immediately under the line of Jupiter and is the third line on the forehead (counting from the hair downwards). A mole on the right side of the line of Mars denotes another on the right arm, and if red in colour it foretells military distinction and success in arms. If honey-coloured good fortune in connection with horses and cattle, but if black, it warns against danger from four-footed animals. If much raised and reddish it shews good fortune in matters connected with fire. In a woman this mole shews that she will marry a rich man, kind-hearted and amiable. A mole on the left side of the line of Mars points to another on the left arm and in a man denotes a quarrelsome nature, if black his character is treacherous and he is addicted to gambling and betting and likely to lose large sums of money through horse racing. A similar mole in a woman shews misfortune in love affairs and that she will be likely to have treacherous friends of her own sex. A red mole in the middle of the line of Mars in a man warns him that he will probably be the innocent cause of some great misfortune to a person and one which will involve himself also in great trouble. This mole in a woman, has a similar meaning if black, but if red it is a sign of vanity.

ELLICE BEERE.

## The Oracle

**NOTE.**—The following is most important to all persons born when the sign Virgo was rising upon the ascendant, but when the time of birth is unknown, in a general way it will answer to the individual characteristics of those born between the 23rd of August and the 23rd of the present month in any year, but it will be found to represent the personal characteristics of all those who were born at the time when the Moon was in the sign of Virgo. Persons born after the year 1850 will be able to find the Moon's place on the day of their birth, by reference to the table of the Moon's place in "Astrology for All."

**IMPORTANT** to all born between August 23rd and September 23rd inclusive in any year.

The fate and fortune, in a general sense, of all persons born under the influence of the sign Virgo, governing the present month.

Virgo, the sixth sign of the zodiac, is the primary or internal of the earthy trine; it is a common sign, and the negative house of Mercury, in which sign this planet has great power. It governs the bowels. This is the sign of the celestial Virgin. The symbol of Virgo is made by writers somewhat like the letter "m" crossed at the end, and is printed thus ♍.

Qualities, discrimination and chastity; failings over criticism.

**PERSONAL DESCRIPTION.**—Middle statue, rather slender but very neat and compact; dark hair and complexion; shrill voice.

**CHARACTER AND DISPOSITION.**—The sign Virgo endows those born under its influence with a cool, clear intellect and a great sense of justice. Those born under it are inclined to be rather cold and harsh in their treatment of others; they can be good and faithful friends, but make hard masters. Their mind is liable to give undue importance to small things, yet their nature is pious and honest, and they are very careful of ways and means in the affairs of life. They are rather difficult to understand, though very confiding where their affection or trust is given. Their disposition is kind, modest and retiring, yet they are always agreeable company. Their will, although firm and strong, is capable of sudden changes under persuasion. Their mind is generally high endowed, intelligent, ingenious, and they are tenacious of their opinions. They are slow to anger, and equally slow to forgive, and hold in displeasure for a long time those who have hurt them. Under adequate inducement, however, they will often repent their anger. They are fond of the arts, literature, history, drama and divinity. The sign Virgo should make them quiet in tone and demeanour.

**FATE.**—The death of an elder brother or sister is indicated. There may be little or no sympathy between the members of their family.

They are generally fond of horticulture, gardening, farming, etc., and their mind is capable of mastering the theoretical and practical sciences and abstruse studies. Their friends will be changeful, and alterations in their life will cause many changes among their friends. Any friendships they may form in their native town or country, or upon sea voyages, are likely to greatly influence their life; but frequent changes are certain to affect the stability of these relations. They may have enemies amongst people in position belonging to the world of art, or engaged in speculation; and some permanent hatred may be directed against them on account of some love affair.

**HEALTH.**—Their early days are usually fraught with danger of sickness or accidents in the cradle. Danger of accidental death is indicated, especially through animals. The complaints incidental to the sign Virgo are: colic and flatulent pains in the bowels, dysentery, diarrhoea, uterine affections, dyspeptic action arising from debility, want of tone or impure blood. Eczema is a complaint to which they are peculiarly liable.

**MARRIAGE.**—Disappointments and tardiness in their love affairs are indicated. They may marry twice or form a second attachment during the life of their legal partner. Strifes are shown in the marriage state and some secret in connection with their partner necessitating some seclusion. Their family will be small and difficult to manage, and their children will not readily marry.

**TRAVEL.**—Much travel and many short journeys in connection with business affairs are indicated, also long voyages in search of wealth, or in connection with property in foreign lands. Frequent changes of residence are shown and at the end of their life they may have two residences or property in two places.

**FORTUNE.**—They acquire honour and position in life by their own merit, and the use of their own inherent faculties. The degree of wealth indicated is not considerable, and is only to be acquired by dint of hard labour; even then there is danger of loss, especially during the early part of their life. The close of their life will be more fortunate. They may gain by will or legacy and through their marriage partner. They should have success in connection with some art or science, or by teaching. They will generally succeed best in a foreign land. They would make successful bankers, or dealers in business generally, though there is danger for them in speculation. After many difficulties they should be successful in accomplishing a position in life, but strife will be frequent and there will be many changes of occupation, or they may follow more than one occupation at the same time. Between two stools, however, they may come to the ground, but ultimate success is indicated.

## Perpetual Table of Planetary Hours

In last month's issue the influence of the various planetary hours was given, and sufficient information has already been given to make a perpetual table of planetary hours easily understood by all students who are interested in this subject. From time to time we shall explain this table, or refer to it when dealing with the subject of planetary hours.

Explanation of the tables. The time of sunrise and sunset is given for every fifth day at Greenwich. On September the 11th, the Sun rises at 5.30 a.m. For the present year this day falls on Tuesday, therefore the first hour is governed by the planet Mars. The length of the planetary hour is 1 hour 4 minutes and a half minute. If we desire to know when the planet Venus rules we find on reference to the table for the days, that Venus rules during the third hour of Tuesday, therefore we multiply 1 hour  $4\frac{1}{2}$  minutes by two, the number of planetary hours elapsed, and we have 2 hours 9 minutes to add to 5.30 a.m., thus the planetary hour of Venus begins at 7.39 a.m.

The first hour is always Sunrise	SUNDAY ☉ day Planet Ruling	MONDAY ☾ day Planet Ruling	TUESDAY ♂ day Planet Ruling	WED. ♂ day Planet Ruling	THURS. ♂ day Planet Ruling	FRIDAY ♀ day Planet Ruling	SAT. ♂ day Planet Ruling
1st hour.	☉	☾	♂	♂	♂	♀	♂
2nd "	♀	♂	☉	☾	☉	♀	♂
3rd "	♂	☉	☾	♂	♀	☉	♂
4th "	☾	♂	♂	☉	♂	☾	♀
5th "	♂	☉	☾	♂	♀	☉	♂
6th "	☉	♂	♂	☉	☾	♀	♂
7th "	♀	☉	☾	♂	☉	♀	♂
8th "	♂	☉	☾	♂	♀	☉	♂
9th "	☉	♂	♂	☉	☾	♀	♂
10th "	♀	☉	☾	♂	☉	♀	♂
11th "	♂	☉	☾	♂	♀	☉	♂
12th "	☉	♂	♂	☉	☾	♀	♂
13th "	♀	☉	☾	♂	☉	♀	♂
14th "	♂	☉	☾	♂	♀	☉	♂
15th "	☉	♂	♂	☉	☾	♀	♂
16th "	♀	☉	☾	♂	☉	♀	♂
17th "	♂	☉	☾	♂	♀	☉	♂
18th "	☉	♂	♂	☉	☾	♀	♂
19th "	♀	☉	☾	♂	☉	♀	♂
20th "	♂	☉	☾	♂	♀	☉	♂
21st "	☉	♂	♂	☉	☾	♀	♂
22nd "	♀	☉	☾	♂	☉	♀	♂
23rd "	♂	☉	☾	♂	♀	☉	♂
24th "	☉	♂	♂	☉	☾	♀	♂

# Perpetual Table of Planetary Hours

D.M.	Sun		Length of Planetary Hour		D.M.	Sun		Length of Planetary Hour	
	Rises	Sets	Day-time	Night-time		Rises	Sets	Day-time	Night-time
	H. M.	H. M.	H. M.	H. M.		H. M.	H. M.	H. M.	H. M.
Jan. 1	8. 9	3.59	39	1.21	July 1	3.49	8.18	1.22½	37½
" 6	8. 7	4. 5	40	1.20	" 6	3.53	8.16	1.22	38
" 11	8. 5	4.12	40½	1.19½	" 11	3.58	8.13	1.21½	38½
" 16	8. 1	4.20	41½	1.18½	" 16	4. 3	8. 8	1.20	40
" 21	7.56	4.28	42½	1.17½	" 21	4.10	8. 2	1.19	41
" 26	7.49	4.36	44	1.16	" 26	4.17	7.56	1.18	42
Feb. 1	7.42	4.46	45	1.15	August 1	4.26	7.46	1.17	43
" 6	7.34	4.55	46½	1.13½	" 6	4.33	7.38	1.15½	44½
" 11	7.25	5. 4	48	1.12	" 11	4.41	7.29	1.14	46
" 16	7.15	5.13	49½	1.10½	" 16	4.49	7.19	1.12½	47½
" 21	7. 6	5.22	51	1. 9	" 21	4.57	7. 9	1.11	49
" 26	6.55	5.31	52½	1. 7½	" 26	5. 5	6.59	1. 9½	50
March 1	6.48	5.31	54	1. 6	Sept. 1	5.14	6.46	1. 8	52
" 6	6.37	5.46	55½	1. 4½	" 6	5.22	6.34	1. 6½	53½
" 11	6.26	5.55	57	1. 3	" 11	5.30	6.23	1. 4½	55½
" 16	6.14	6. 4	58	1. 1½	" 16	5.38	6.12	1. 3	57
" 21	6. 3	6.12	1. 0½	59½	" 21	5.46	6. 0	1. 1	59
" 26	5.51	6.20	1. 2½	57½	" 26	5.54	5.48	59½	1. 0½
April 1	5.38	6.30	1. 4½	55½	Oct. 1	6. 3	5.36	58	1. 2
" 6	5.27	6.39	1. 6	54	" 6	6.11	5.26	56	1. 4
" 11	5.15	6.47	1. 7½	52½	" 11	6.19	5.15	54½	1. 5½
" 16	5. 4	6.55	1. 9	51	" 16	6.28	5. 4	53	1. 7
" 21	4.54	7. 4	1.10½	49½	" 21	6.36	4.53	51½	1. 8½
" 26	4.44	7.12	1.12	48	" 26	6.45	4.43	50	1.10
May 1	4.34	7.20	1.14	46	Nov. 1	6.56	4.31	48	1.12
" 6	4.25	7.28	1.15½	44½	" 6	7. 5	4.23	47	1.13
" 11	4.16	7.36	1.17	43	" 11	7.14	4.15	45	1.15
" 16	4. 9	7.43	1.18	42	" 16	7.22	4. 8	44	1.16
" 21	4. 2	7.51	1.19½	40½	" 21	7.31	4. 2	42½	1.17½
" 26	3.56	7.57	1.20½	39½	" 26	7.39	3.56	41½	1.18½
June 1	3.50	8. 4	1.21	39	Dec. 1	7.46	3.53	40½	1.19½
" 6	3.47	8. 9	1.21½	38½	" 6	7.53	3.50	40	1.20
" 11	3.45	8.13	1.22	38	" 11	7.58	3.49	39	1.21
" 16	3.44	8.16	1.22½	37½	" 16	8. 3	3.49	39	1.21
" 21	3.44	8.18	1.23	37	" 21	8. 6	3.51	39	1.21
" 26	3.46	8.19	1.23	37	" 26	8. 8	3.54	39	1.21



## Numbers

BY H. S. GREEN

(Continued)

H. P. BLAVATSKY writes that "number 6 was the symbol of our globe ready to be animated by a *divine* spirit,"\* which zodiacally may be compared with the relation existing between Virgo and Leo. Again, she writes that "figure 6 was the symbol of the earth during the autumn and winter sleeping months, and figure 7 during spring and summer, as the spirit of life animated her at that time—the seventh or central informing force."† The Orphic hymn to Earth (Γῆα) bears this out, for it is an ode to fruitful mother-earth, or the season of the Sun in Virgo.

"All-parent, bounding, whose prolific powers  
Produce a store of beauteous fruits and flowers.  
All-various maid, the immortal world's strong base,  
Eternal, blessed, crowned with every grace;  
From whose wide womb, as from an endless root,  
Fruits many-formed, mature and graceful shoot.  
Deep-bosomed, blessed, pleased with grassy plains,  
Sweet to the smell, and with prolific rains . . ."

Save for its occult significance, this might almost stand as the prototype of Keats' *Ode to Autumn* :

"Season of mists and mellow fruitfulness!  
Close bosom-friend of the maturing sun;  
Conspiring with him how to load and bless  
With fruit the vines that round the thatch-eves run."

"O Mother Earth, of Gods and men the source," says the Orphic hymn. Hermes-Mercury is born of Maia. "Mother of Hermes and still youthful Maia," as Keats sings in his magnificent fragment. Mâyâ is the name of the mother of Gautama Buddha.

\* *Secret Doctrine*, II. 614.

† *Ibid.*, II. 616.

The Virgin Mary is the mother of Christ. The second divine "Loka" (from above) is spoken of by H. P. Blavatsky as the "innate Christos state." Many are the world-saviours allegorised as having been born of virgin mothers. When the sign Virgo rises, Capricorn, the human ego, occupies the fifth house, and stands, therefore, for the child of the virgin, since the fifth house is that of children; and it is this ego that has to be crucified, descend into Hades, and undergo initiation by rising into heaven or that higher state of consciousness signified by Jupiter and Sagittarius.

Eliphas Lévi writes: "The six is Bereschith, of which the pagans have their Berecynthea,\* or the mother-nature of the Gods. Bereschith means genesis, the great source, the head of things. If one makes a name of it, it will be feminine, and then the singular *bara* which follows it will no longer seem strange, and one could translate it thus:

"The eternal genesis created the Gods.

"As the ternary expresses an absolute and complete concept, two ternaries give the idea of two absolutes. Under this aspect, the six is only the binary exalted and carried to its supreme power. Thus it can figure the revolt of Satan or the spontaneous deification of the created spirit—a conception absurd indeed, but sublime in the highest degree: absurd, because two infinities are impossible; sublime, because this impossible is in some sort realisable in the indefinite extension of liberty." (*Lucifer*, XIV. 507.)

This idea of revolt seems to me to come more naturally under the heptad; but numbers six, seven, and eight are closely associated together, as will be seen later. It may seem audacious to differ from so many authorities, but I cannot help thinking that too much has been made of the duad as expressive of evil and opposition, since it has far more to do with union and love.† Certainly separation begins with the duad, but it is only potential there; and to make it actual the triad is required. The "pairs of opposites" would be unthinkable without the tacit assumption of a synthetic third stage. The universe is pervaded by *three* qualities (gunas), not by two only. Number one

\* Cybele, daughter of Uranus and Gaea, identified by the Greeks with Rhea. Thomas Taylor associates her with the ogdoad, but the close relation between this number and the hexad will be referred to under the ogdoad.

† In nature opposite polarities attract, as seen in positive and negative electricity. They do not repel.

is absolute unity ; number two potential duality ; number three actual duality. As shown, therefore, in the table previously given, in any triad, one member is positive, one negative, and one both, or in terms of the zodiac, one member is movable, one fixed, and one both. Complete opposition implies a previous unity, and this is seen in the third member of the triad, which is allied to both opposites. The third sign of the zodiac is the first double one ; and Libra, the third sign within the egg of Cancer, has opposition or war as one of its significations, as has also the seventh mundane house, the descendant. The symbolism of the "fall of the angels" and the "war in heaven" comes therefore under Libra, although Virgo and Scorpio both bear upon the subject.

It is worth remembering in this connection that Hindu Astrology gives one of the meanings of the sixth house as *enemies*, although western astrologers refer this to the seventh.

Treating number six as composed of two binaries, Lévi continues :

"It is the magic head of the *Zohar* with its reflection. . . . Six is the number of man, it is the number of struggle, of labour, of liberty, and of love. . . It is the woman clothed with the Sun and having the Moon under her feet, who cries out in the pangs of childbirth." (*Lucifer*, XV. 161.)

As we have seen, the idea of labour and servitude arises out of the passivity of Virgo following after the superior will of Leo. But the ideas of love and of man seem to associate rather with the septenary, because this provides the central point which separates, and at the same time unites the two triangles. Lévi admits as much when he says : "Under the empire of the septenary it is Grace and Love ; but without the septenary, the six is rebellion and Anti-Christianism." He fails to explain, however, how the female passivity of the hexad by itself can rebel against anything. It is the septenary that both rebels and loves.

## Correspondence

SIR,

Would it be asking too much of the acute and critical Heinrich Däath to have from his prolific pen a disquisition on the family of the Duke of York? If not too much trouble will he also give me formulæ and examples for determining: First, inequalities in the obliquity of the ecliptic. Second, the duration of day and night from the latitude of place and the Sun's declination. Third, the period of the Moon's revolution round the earth and the time between one opposition and another. I should also esteem it a great favour could I be supplied with the Right Ascension and Declination of Ceres and Vesta for June, 1841.

Obediently yours,

CHARLES B. EASTWOOD.

SIR,

Your correspondent will see by next issue that I have made an attempt to answer *one* of his queries. For the remaining, I trust the following replies will be found adequate for his needs.

*Question 1.* How are inequalities in the obliquity of the ecliptic calculated?

*Answer.* The different values assigned in different periods to the obliquity of the ecliptic diminish in regular ratio from the most distant times of which we have any record to the present. M. Laplace published in the *Connaissance des Temps* for 1811, a table of the observed obliquity at different intervals. The following table shows the successive diminution of the obliquity:

B.C.

<i>Date of Observation.</i>	<i>Observed Obliquity.</i>	<i>Calculated Obliquity.</i>	<i>Excess or Defect of the Observation.</i>
1100	23°·900553	23°·866128	+0°·034425
350	23°·822217	23°·768613	+0°·053604
250	23°·760828	23°·755275	+0°·005553
50	23°·760828	23°·734278	+0°·026550

A.D.

173	23°·692491	23°·704722	-0°·012231
461	23°·647878	23°·664735	-0°·016415
629	23°·667804	23°·638050	+0°·029754
880	23°·594715	23°·586939	+0°·007776
1000	23°·573889	23°·580567	-0°·006678
1279	23°·534001	23°·539581	-0°·005580
1437	23°·529996	23°·518053	+0°·011943

The method of ascertaining this diminution is by comparing the positions of the same stars with respect to the ecliptic at a very distant period of time. The difference is most remarkable in the stars near the summer and winter solstices. Those anciently on the north of the ecliptic at the summer solstice are now removed further from its plane; on the contrary those stars which according to ancient records were situated south of the ecliptic in the vicinity of the same solstice have approached its plane, some of them even having passed to the north of it.

There are two kinds of inequalities to be calculated, *viz.*, secular and periodic. The secular are those so slow in progress that they are only ascertained by comparing ancient observations with the modern. The periodic are quicker and only embrace small intervals of time. I shall here insert the formulæ reduced from the *Mécanique Celeste*, tom. iii., p. 158. The year 1750 was rendered celebrated by the labours of Lacaille, and has on that account become the origin of almost all astronomical determinations, the mean obliquity of the ecliptic, or that corrected for all the small periodic oscillations, was then  $23^{\circ}.47308$ . Let  $v$  denote the value of this obliquity at any number  $t$  of Julian years from that epoch, it being negative before and positive after that time. Then the *secular inequality* will be expressed by this formula:—

$$v = 23^{\circ}.47308 - 0^{\circ}.929736 \sin. t \ 32''.11575 - 0^{\circ}.661788 \sin.^3 t \ 6''.97323.$$

As  $t=0$ , at the commencement of the period, or at 1750, all the terms of the formula vanish except the first, which consequently gives the obliquity for that epoch. When  $t$  is negative, they all become positive, which shows that the obliquity increases as we ascend from that time; and when  $t$  is positive all the terms except the first are negative which evidently shows the diminution. Making  $t$  equal to unity at any time, and the expression for  $v$  will give the annual variation in the mean obliquity at that period. In order to calculate the *periodic inequalities*, let  $v$  be the value of the obliquity at the commencement of any year, and  $D$  the actual diminution for that year;  $v$  and  $D$  being calculated by the preceding formula, then after any number of days  $n$  has elapsed, the apparent obliquity  $E$  will be—

$$E = v - \frac{D \cdot n}{365.25} + 0''.43452 \cos. 2 L + 9''.63199 \cos. N.$$

where  $L$  is the longitude of the Sun, and  $N$  the longitude of the Moon's *ascending node*, or the point where her orbit cuts the ecliptic, as she ascends above this plane towards the north.

*Question 2.* How is the duration of night and day calculated from the latitude of place and Sun's declination?

*Answer.* If three visual rays be supposed to be drawn from the observer, one to his zenith, another to the body at the instant its centre appears on the horizon, and a third to the pole, they will form a spherical triangle, the three sides of which are known, *viz.*, the

distance from pole to zenith, which may be denoted by  $D$ , the polar distance of the body which may be represented by  $\Delta$ ; and the zenith distance  $Z$  of the body which is equal to  $90^\circ + \text{refraction} - \text{parallax}$ . This is the usual formula.

$$\sin. \frac{1}{2} H = \sqrt{\frac{\sin. \frac{1}{2} (Z + \Delta - D) \sin. \frac{1}{2} (Z + D - \Delta)}{\sin. \Delta \sin. D}}$$

The angle  $H$  when reduced into time gives the duration between the instant of the body's rising and that of its passage over meridian.  $H$  is in fact what we denominate the semi-diurnal arc. To compute the length of day by this formula, let us take the 22nd of June, latitude London. Latitude of London is  $51^\circ 32'$ , then  $D = 38^\circ 29'$ . The Sun's declination is  $23^\circ 28'$  on that day, and polar distance,  $66^\circ 32'$ , while his zenith distance  $Z = 90^\circ + 33' 16'' - 9'' = 90^\circ 33' 7''$ . Then by substituting these quantities in the preceding formula we shall have—

$$\begin{aligned} \sin. \frac{1}{2} H &= \sqrt{\frac{\sin. \frac{1}{2} (90^\circ 33' 7'' + 66^\circ 32' - 38^\circ 29') \sin. \frac{1}{2} (90^\circ 33' 7'' + 38^\circ 29')}{\sin. 66^\circ 32' \times \sin. 38^\circ 29' [-66^\circ 32']}} \\ &= \sqrt{\frac{\sin. 59^\circ 18' 4'' \times \sin. 31^\circ 15' 3''}{\sin. 66^\circ 32' \times \sin. 38^\circ 29'}} \end{aligned}$$

Converting this into logarithms we get

$$\begin{aligned} \sin. \frac{1}{2} H &= \frac{1}{2} \{ (9.9344288 + 9.7149880) - (9.9625076 + 9.7939907) \} \\ &= \frac{1}{2} (19.6494168 - 19.7564983) \\ \text{hence } \sin. \frac{1}{2} H &= 9.9464592; \end{aligned}$$

$$\text{and therefore } H = 62^\circ 8' \times 2 = 124^\circ 16'$$

This is the semi-diurnal arc for the time and place required. To obtain length of day we work as follows:

$$\frac{124^\circ 16' \times 2}{15} = 16 \text{ hrs. } 34 \frac{3}{4} \text{ min.}$$

To find the length of night is easily done by taking the complement which added to this value would complete the 24 hours of the whole day.

*Question 3.* How is the period of the Moon's revolution round the earth determined, and the time between one opposition and another?

*Answer.* Since in the middle of a lunar eclipse the Moon is opposite to the Sun, compute the time between two eclipses or oppositions, between which there is a great interval of time; and divide this by the number of lunations that have passed in the meantime, the quotient will be the quantity of the synodical month. Compute the

Sun's mean motion during the time of the synodical month and add this to the entire circle described by the Moon. Then as the sum is to  $360^\circ$  so is the quantity of the synodical to the periodical. Thus, Copernicus in the year 1500, November 6th, at 12 at night observed an eclipse of the Moon at Rome, and August 1st, 1523, at 4hrs. 25min., another at Cracou; hence the quantity of the synodical month is thus determined.

Obs. 2.	1523; 237hrs. 4'25mins.
Obs. 1.	1500; 310hrs. 2'20mins.
Interval of time	22d. 292hrs. 2'5mins.
+ Intercalary days	5
Exact Interval	22d. 297hrs. 2'5mins. or 11991005'.

which divided by 282 months elapsed in the meantime, gives the quantity of the synodical month  $42521.9''$ , that is 29d. 12hrs. 41mins. From two other eclipses, the one at Cracou, the other at Babylon, the same author determined at a later date the quantity of the synodical month to be 29d. 11hrs. 43min.

The Sun's mean motion in the time	$29^\circ 6'24''$
The Moon's motion	$389^\circ 6'24''$
Quantity of periodical month	27d. 7hrs. 43mins.

Hence 1. The quantity of the periodical month being given by the rule of three we may find the Moon's diurnal and horary motion, etc. And thus may tables of the mean motion of the Moon be constructed. 2. If the Sun's mean diurnal motion be subtracted from the Moon's mean diurnal motion the remainder will give the Moon's diurnal motion from the Sun; and thus another table may be constructed. 3. Since in the middle of a total eclipse the Moon is in the node, if the Sun's place be found for that time and to this be added six signs, the Sun will give the *place of that node*. 4. From comparing the ancient observations with the modern it appears that the nodes have a motion, and that they proceed *in antecedentia*, i.e., from Taurus to Aries, from Aries to Pisces, etc. If then to the Moon's mean diurnal motion be added the diurnal motion of the nodes, the same will be the motion of the Moon from the node; and thence by rule of three may be found in what time the Moon goes  $360^\circ$  from the dragon's head, or in what time it goes from and returns to it; that is the quantity of the *dracontic month*. 5. If the motion of the apogee be subtracted from the mean motion of the Moon, the remainder will be the Moon's mean motion from the apogee; and thence by rule of three is determined the quantity of the *anomalistic month*. According to the observations of Kepler the mean synodical month is 29d. 12hrs. 44min. 2'87secs. Her periodical month 27d. 7hrs. 43min. 8secs. The place of the apogee for the year 1700, Jan. 1st, OS., was  $11S.8^\circ57'1''$ . The place of the ascending nodes  $4 S.27^\circ39'17''$ . Mean diurnal motion of the Moon  $13^\circ10'35''$ . Diurnal motion of apogee  $6'41''$ . Diurnal

motion of nodes  $3^{\circ}11''$ . Lastly the eccentricity 4,362 parts, such whereof the semi-diameter of the eccentric is 100,000; and therefore the diurnal motion of the latitude is  $13^{\circ}13'46''$  and the diurnal motion from the apogee  $13^{\circ}3'54''$ . The values of the Moon's revolutions at present are as below. Compared with ancient observations it is found that the Moon's mean velocity is being accelerated, and the period of revolution shortened. Laplace proved, theoretically at least, that the acceleration is confined within very narrow boards, and will be followed by a retardation.

The fixed stars in 27d. 7hrs. 43min. 11.461secs.

The first point of  $\Upsilon$  27d. 7hrs. 43min. 4.614secs.

The sun 29d. 12hrs. 44min. 2.87secs.

*Question 4.* Right ascension and declination of Ceres and Vesta for June, 1841.

CERES (FOR EVERY 4TH DAY)

<i>June</i>	<i>Rt. Ascension</i> hrs. min.	<i>Declination</i> ° ' "
2	0 58	3 S. 59
6	1 3	3 37
10	1 8	3 17
14	1 12	2 58
18	1 16	2 40
22	1 21	2 24
26	1 25	2 9
30	1 29	1 56

VESTA

	hrs. min.	° ' "
2	1 0	0 N. 11
6	1 6	0 40
10	1 12	1 8
14	1 18	1 35
18	1 24	2 0
22	1 29	2 24
26	1 34	2 46
30	1 40	3 7

In the October number we will give a disquisition upon the Duke of York's family as there is not sufficient time to prepare it this month. Our correspondent makes an opportune request, and more than he will be glad to see the several nativities collected together in one place.

HEINRICH DÄATH.