

MAP OF THE HEAVENS

for August.

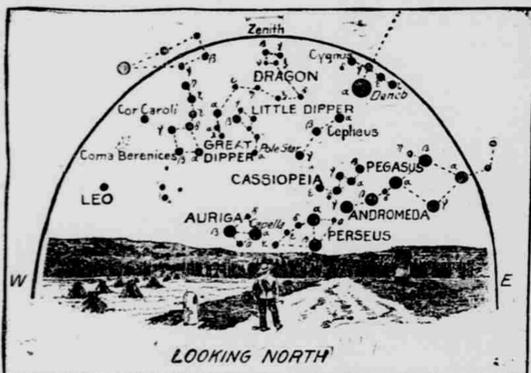
August being one of the months during which we may expect on a large scale dazzling downpours of shooting stars, I think it particularly opportune for me to devote to these curious phenomena the first part of my monthly talk.

What we are accustomed to call shooting stars are really not stars at all, but fragments of some destroyed planets within our solar system, abandoning their circulatory motions around the sun, and millions of which are supposed to exist in all sorts of sizes from a pebble to a mass of many tons weight. As their orbits cross that of the earth, their small bulk renders them ultra-sensitive to our power of attraction—that same power to which we owe the moon's regular and obedient moving around our sphere. When these fragments of broken-up planets thus enter the boundaries of the earth's gravity power, they "shoot" downward with such rapidity as to ignite, as they fly through our atmosphere at a rate of not less than 18 to 25 miles per second, and there, these opaque, until

the finest double star of the heavens, its larger component of a fine orange color, the smaller one of an intense blue.

Following downward and crosswise, in direct line with Arid, we find Alderamin, Alpheratz and Errai of "Cepheus." Underneath, the W, clearly formed by five stars, of "Cassiopeia" (the Seated Lady), and to its right the three principal stars of "Pegasus" (the Winged Horse), Markab, Scheat and Algenib forming such a fine square with Alpheratz of "Andromeda" (the Chained Lady), Mirach and Almach of the latter constellation lead us to the triangle of "Perseus" (the Champion) close to the horizon, with Mirak and Algol shining superbly; west of them Capella (the She-Goat), the first magnitude star of "Auriga" (the Waggoner), and its companion Menkalinan send us their brilliant message.

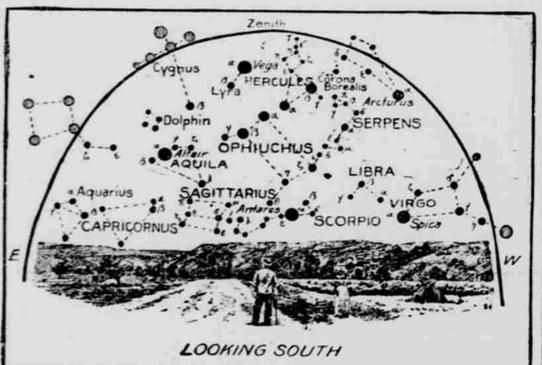
Let us turn about now and begin looking southward. The minor stars of "Hercules" (the Kneeler), are at our Zenith, its two



then invisible fragments of stars become suddenly luminous, leaving a streak of light behind their vertical, head-long course. On the way, most of this matter is reduced to an impalpable powder—partly iron and nickel—which, under microscope appears absolutely different from any earthly mineral combination. There is plenty of that "celestial powder"—a rather bold association of words—all over the surface of our globe; it is discovered in the analysis of water, even in matter brought up from the bottom of the ocean. Thus do the heavenly bodies give us a "touching" token of their existence.

"Shooting Stars" begin to be visible at about 75 miles above sea level, that is as soon as they reach our atmosphere, which is believed by the majority of expert scientists not to extend any farther around us. The nights of August 10 and November 14, of every year are noted for a plentiful downpour of those aerolites. Every 33 years there is a recrudescence of such manifestations; ever since 1902

chief luminaries, Ras Algethi and Kioroforus lower down. Vega of "Lyra" (the Lyre) reigns supreme in that region of the firmament; Sheliak, another star of the same constellation, leads us downward to Albireo of "Cygnus" (the Swan) of which I spoke above. Continuing along the Eastern limit, we notice "Delphinus" (the Dolphin), known by its four leading stars forming an irregular square. Underneath we are greatly attracted by the dazzling light of Altair, the first magnitude beauty of "Aquila" (the Eagle), Alshain and Tarazed shining on either side. Close to the Eastern horizon, we meet the Zodiacal Constellation "Aquarius" (the Water Bearer), its three leading stars (of the third magnitude) in a fairly regular triangle. Its Easternmost star, Sadalsund, is close to "Capricornus" (The Sea-Goat), another Zodiacal Constellation, and a curious shaped triangle, with Segunda Giedi and Deneb Giedi (third magnitude) close together at the Western angle. These almost reach up to a third Zodiacal Constellation.



these exceptionally fine star showers came to time with promptitude, the years 1866 and 1899 being no exception.

Looking Northward.

To our Zenith, the second magnitude stars Rastaban and Etainin of "Draco" (the Dragon), indicate the place occupied by the head of the mythical monster; while to their left, Nekkar of "Bootes" (The Herdsman) is the largest visible star of this constellation. The tail of the Dragon stretches down, between the Great Dipper and the Little Dipper, its principal star, Thuban, shining behind Alloth of "Ursa Major" and Kochab of "Ursa Minor." Along the western limit, "Cor Caroli" (The Heart of Charles) displays a fine star that bears its name. Sometimes this constellation is called "Canes Venatici" (The Hunting Dogs) and then the appellation of Cor Caroli is given its main luminary of the third magnitude. One of these two dogs' name is Asterion, and at the place where his collar is supposed to be is found a remarkable nebula, the center of which is surrounded with a sort of broken ring; no telescope has been round powerful enough to separate the stars it is composed of. Underneath, close grouped, see the stars of "Coma Berenice" (Queen Berenice's Hair). Of the Zodiacal Constellation "Leo" (The Lion), behold Regulus (for the Heart of the Lion) a remarkably fine, first magnitude star. Returning to the Zenith point, we notice to the East, four of the stars of "Cygnus" (the Swan), Arid in its solitary splendor, and in a row, four very fine luminaries. The rest of the long arm of the cross will be visible in our southward aspect. You remember that it ends with Albireo, doubtless

tion, "Sagittarius" (the Archer), only the upper portion of which is visible this month. Still in line, close to the horizon, is stretched a fourth Zodiacal Constellation, "Scorpio" (the Scorpion) including the deep red first magnitude star Antares (the Heart of the Scorpion). Several stars in the tail of Scorpio are so far south as never to rise in our latitude.

Working our way back to our Zenith, we meet the beautiful square of "Ophiuchus" (the Serpent Bearer), with its fine Cabral and Ras Alghai and Korneforos of "Hercules" (the Kneeler), "Corona Borealis" (the Northern Crown), a necklace with Margarita as its best jewel, leads up to these stars of "Bootes" (The Waggoner), which we did not see in our Northern inspection. Looking gradually downward, we pass "Serpens" (the Serpent), with Unukalhai, a third magnitude star, and reach the three stars of "Libra" (the Balance), a Zodiacal Constellation. Finally "Virgo" (the Virgin) completes the largest number of Zodiacal Constellations (seven) we ever saw together in one, and the same month. The square of Virgo shines splendidly with Spica (the Ear of Wheat), first magnitude, in the lead.

The Planets Visible This Month.
No chance of seeing "Mercury," too close to the Sun. "Venus" is the Morning Star, toward the East. "Mars" also illumines the Orient before sunrise. "Jupiter" will shine in "Scorpio" during the first half of the night; "Saturn" will be visible—pale but steady—in "Sagittarius" for two-thirds of the month.
C. de SAINT-GERMAIN.

OPENED JAP PORTS.

WORLD NOW REAPS WHERE HE SOWED.

Japan Has Unveiled a Monument to Matthew Calbraith Perry, the American Commodore Who Made a Famous Treaty.

The present, when the development of their Oriental trade is one of the chief concerns of civilized nations, is an exceptionally fitting time for the dedication of a monument to the man who did more than any one other individual to give western nations an opening in the east. The man was Commodore Matthew Calbraith Perry, member of a family whose name occupies an honored place in the naval history of this country, and himself one of the most illustrious sailors ever in command of an American ship. His revolutionary war was privately by the Japanese, on the spot where his foot first tread, the spot of the Mikado's kingdom, 48 years ago. The visit of Perry, according to an eminent representative of the Japanese empire, was "the turning of the key which opened the doors of this country to friendly intercourse with the United States and subsequently to the people of Europe."

Matthew Calbraith Perry was the son of Christopher Raymond Perry, who fought on privateers in the revolution and made numerous voyages to the East Indies in the mercantile marine. Of this veteran commander's two sons, Oliver Hazard Perry acquired the greater distinction



by reason of the part he took in the war of 1812, but it is doubtful if he accomplished as much for the lasting good of the world as did Matthew Perry. The latter entered the navy as a midshipman in 1809 and served on the schooner Revenge, under his brother, Oliver, for one year. Then he went aboard the flagship President and for three years was trained under Commodore Rodgers. It was from this boat that the first hostile shot of the war of 1812 was fired, when Rodgers chased the Belvidera. Subsequently this vessel, which is now used as a receiving ship in the British navy, cruised the seas of northern Europe as a commerce destroyer and at one time 29 ships were searching for it. His first important post was executive officer of the Cyane, which conveyed a colony of negroes from this country to Africa, and it was he who selected the site of Monrovia, the present capital of Liberia. These negroes were sent out under the auspices of the Colonization Society. Congress has appropriated \$100,000 for the purpose of carrying back to Africa such slaves as had been surreptitiously imported. Perry took an important part in establishing their settlement. Upon his return from this trip he

Ferried Out Pirates.
In the West Indies and subsequently went to Mexico where he studied the Spanish language until he had become proficient. He protected American commerce against Greek pirates during the revolution in that country in the early '20's. In 1829, when John Randolph was envoy to the Czar, Perry commanded the vessel which carried him thither and which was the first American man-of-war to enter Russian waters. Nicholas wanted to confer high honors upon Perry, but the latter preferred his humble station in the American navy to a place under the Czar. Mehemet Ali, conqueror of Khartoum and founder of the Khedival dynasty of Egypt, was the next celebrity to entertain him. He was with Commodore Patterson when the latter made a brilliant naval demonstration in the harbor of Naples, forcing Ferdinand I. and Count Casarzo to pay the spoliation claims urged by President Jackson.

Blazing the Crops.
A curious old custom has been revived at the village of Castleacre, in Norfolk—that of blessing the crops. The parishioners gathered at the church and formed in procession, headed by the vicar and choir. After parading the village they proceeded to visit the fields of growing corn, at one of which a service was held, hymns sung, and a blessing pronounced by the vicar on the crops of the parish. The procession then returned to the church, singing recessional hymns by the way, and dispersed after receiving benediction.

Titles to Accompany the Eyeglasses.
Sir George White of England can now write after his name—V. C. G. C. B. G. C. S. L. G. C. I. E. and G. C. V. O. and G. C. M. G.—twenty-one letters. This beats Lord Roberts, who has seventeen—namely, V. C. K. G. K. P. G. C. B. G. C. S. L. G. C. I. E. Lord Wolseley is entitled to wear four stars—one, two, three and four. G. C. B. G. C. M. G. and First Class of the Osmanieh.

Bottles in the Ocean.
Numbers of experiments have been made to test the speed and destination of corked bottles thrown into the sea in various parts of the world. The most remarkable example was that in which a bottle traveled 6,000 miles in about two years and a half—roughly, at the rate of six and one-half miles a day. It traveled from latitude 82 degrees south and longitude 60 degrees west to western Australia.

was fully stated. When permitted to board finally he was met only by delegates of the unseemly commodore—for the sake of added impression created in name "Admiral"—and he was informed that the great admiral would hold no intercourse personally with any one short of the emperor or one of his counsellors, and that he came bearing a message of peace from the president of the United States who should be spoken of in the same exalted terms only applicable to the emperor himself. After several days of ceremonial intercourse, a meeting with Commodore Perry was finally arranged and took place on the morning of Thursday, July 14. The result of this meeting was a temporary arrangement favorable to the United States. The following year, Perry went on another expedition to Japan, when the ports were thrown open to Americans by a treaty which is still in force.

Four years after this great work of his life was accomplished, Perry passed away—March 4, 1858.

THE MIDDLE-AGED WOMAN.

Not June's Loveliness but the Glory of October.

She sees, or thinks she sees, neglect and a lack of appreciation on every side. Even the fashion magazines forget her needs and cater largely to those who are young. So she either quits inexcusably, allows herself to subside into a nonentity or else she fills her dressing table with lotions, and creams, and massage rollers and enters upon a combat with youth. She staves her mind, sometimes she neglects her soul, that she may find time to use her many appliances to urge back retreating youth. What the middle-aged woman needs most of all is a better understanding of her privileges and of the amenities of her position. Let her refresh her mind and comfort her heart by a glance at the fragile blossoms and the golden fruit, at the lovely rosebud and the gracious rose, which is odorous until all its petals are unfolded and its golden heart exposed. Let her look at the loveliness of June and then at the glory of October. Let her remember that she is the youth of creation was chaos, and that the completed universe is maturity. Then will she understand the chorus of the morning stars. Then will she wonder at the mad chase after fleet-footed youth. Youth which accepts happiness in place of joy; the false for the true; the unknown for the known; the shadow for the substance; the apparent for the real. Then will she know that her years are jewels. The middle-aged woman are jeweled herself to all sweet and pervading emotions. She could give herself to the varied influences of pictures, of sculptures, of music, of literature and of sweet and noble thoughts. She should watch the splendor of the dawn and glory of the night. She should thrill at the grandeur of the tempest as well as the peace of the sunlit, windless sky. She should be compassionate, she should be loving, she should be true. Then will a charm more potent than that of youth abide with her, and her gracious influence will make her an added power of good in a needy world.—Ledger Monthly.

A HOME FOR EX-SLAVES.

Novel Suggestion for the Old Homestead of Abraham Lincoln.

The old homestead of Lincoln near Hengensville, Ky., is to be converted into a home for ex-slaves. This is the plan of Thomas T. Thomas, a wealthy negro and ex-slave of La Rue county, Ky., who has entered into negotiations with the present owner of the farm for the purchase of the birthplace of the great emancipator. Thomas has considerable wealth which was left him several years ago by his former master, to whom he had been faithful until death, and should the proposed purchase of the farm become a reality he will appropriate his entire fortune to the carrying out of his contemplated plan. Thomas claims to have the backing of several wealthy negroes of the north and east, and several prominent white citizens of the north, it is said, view the project with favor, and will contribute money when it assumes a more definite shape. The logs comprising the original cabin, in which the ex-president was born, which are at present on exhibition at the Pan-American Exposition, will be brought back to the farm and erected on the site of its original location. Thomas says that log cabins similar to that in which Lincoln was born will be built all over the farm for the homes of the ex-slaves, and that a fine building will be erected in the center for headquarters. The original cabin will not be used for habitation, but a magnificent bust of Lincoln will be made and erected in the center of the cabin. Additional land will be purchased and cultivated to supply provisions for the ex-slaves.

Swiss Town to Abolish Fuel.

The town of Davos, writes a Swiss correspondent, is considering a bold scheme for the abolition of all the ordinary forms of fuel. It is proposed to erect an extensive electric plant at the confluence of two large mountain torrents, whose united waters will supply the necessary motive force. A large firm of Swiss electricians has been studying the problem for over a year, and has obtained the concession of the forces of the torrents alluded to. The same firm has bought out new electric heating and cooking apparatus especially designed for the scheme. The first cost of the installation is estimated to be \$500,000. Already electricity is not only used for lighting and motive power, but is adopted in many villages for cooking and heating and in one of the largest bakeries. The idea is to do away with all contamination of the air by the use of fuel.

A Growing Family.

Mrs. Will Burnett of Danbury, is the prize mother of Tennessee. Married five years ago she has ten children, born in this order: First, one child; second, twins; third, triplets; fourth, a quartet. The latter arrived a few days ago.

God does not expect roses to bloom on bare rocks.

Railroad Earnings

QUEER MATHEMATICS USED IN SCHEMING FOR PROFITS.

Railroading, in its beginnings and throughout its exuberant youth, says Carl Hovey in Ainslie's Magazine, was a business which made use of nerve, a big head for planning and plotting and a constant slap-dash application, after which the returns were pretty sure. Nowadays it is all as sophisticated as a cash register. A successful year indicates that some one has taken enormous pains to study the figures, and that the result of his diligence has been a pretty accurate knowledge of the class of business that would pay. A railroad carries freight and passengers for a living. The managing head, in order to direct the business profitably, must know what it costs him to provide the service for which the public pays. Common sense and the instinct of self-preservation demand this course at once, but they are not so forward in suggesting what is to be done first. How can one come to such a knowledge? It costs so much annually to maintain the track and the terminals, so much to pay the salaries of the train crews, yardmen, clerks, officials, and a law department, too. How much, then, will it cost to carry six carloads of potatoes 150 miles out on the main line to Berryville? The problem looks like one by which cunning pedagogues advise little boys that it is impracticable to add hens and geese together in the same sum or useless to seek to know the cost of seven-eighths pounds of butter in a catch question where you are told only the price of a pound of lard. The difference is that the railroad figures do show a glimmer of sense. But this

proves to be a will-o'-the-wisp leading nowhere. Nothing can be done with them until you have slaughtered most of the items wholesale and arbitrarily have selected a few promising ones with which to do business. "Let us say the line carried in the year 1889 50,000,000 tons of freight a distance of one mile; the work has been measured, with this result, which stands on the books as 50,000,000 ton miles." The pay for doing the work, measured also

averages four mills to a ton mile, so that the total revenue from the freight business for that year amounted to \$200,000. The expense is to be measured by a unit which is called the "train mile." In this instance it is the freight train mile. The immediate cost of running a freight train a mile can be computed readily, and it includes: Cost of fuel for the locomotive, and the wages of an engineer, a fireman, a conductor, a couple of brakemen and a flagman. The number of cars may be anything you please so far as these expenses are concerned, for it will not affect them much. In the present case say that the average trainload was 400 tons, a large, but a sound figure. Therefore the number of train miles that had to be run to earn the \$200,000 was 125,000. Train mile cost was reckoned at 75 cents. Therefore we have: Expenses, \$93,750; profit, \$106,250. Not the actual profit, to be sure, but we get on better by keeping the geese separate from the hens, and the figures have their use.

Take the company's report for the following year, 1900. The same work was done, let us say, 50,000,000 ton miles. The average trainload, however, was 500 tons. No wonder the road found itself with more money to divide than it had in the year 1889. For, by increasing the trainload the number of train miles was lessened, and train expenses were inevitably reduced to the tune of nearly \$19,000. The gross revenue remained, of course, the same. The figures are disgraced fully enough, but they tell the truth. They shout it through a megaphone. The way to make money is to increase the trainload. A well-known technical writer in Wall Street calls this "the touchstone of successful or economical railroading." To save train miles is to save money drop by drop, to save it with a sure promise of drops enough in all to make an ocean.—New York Press.

It is estimated that one crow will destroy 700,000 insects every year.

The Enlarged Congress...

It Will Have 386 Members, and the Electoral College 476

Probably the people of the country do not yet fully realize that the house of representatives which they will elect next year will be allotted on a new ratio, and will be much larger than any house ever chosen before. In the house of representatives which will meet next November, and which will meet next December, there are 357 members. In the house which will be elected in 1902 there will be 386 members. The ratio for representation in the house established just after the taking of the census of 1890, was one member for every 173,901 inhabitants. The ratio established under the census of 1900, which will go into operation in the election of November, 1902, is 184,182. The house will be 29 members larger than the present one. Of course, the electoral college will be enlarged to the same extent. The electoral vote in the canvass of 1900 was 447. The vote in the election of 1904 will be 476 through the recent addition to membership in the house, and there is a chance that it may be still further enlarged, be-

cause the admission of Oklahoma and perhaps one or two other territories to statehood between now and the next presidential campaign is decidedly probable.

No state lost any members through the recent adjustment of representation in the house and in the electoral college. On the other hand, many states gained. Arkansas, California, Colorado, Connecticut, Florida, Louisiana, Massachusetts, Mississippi, Missouri, North Carolina, North Dakota, Washington, West Virginia, and Wisconsin will each have to choose one member more next year than they chose last year. Minnesota, New Jersey and Pennsylvania will each gain two members. Illinois, New York and Texas will each gain three members.

Substance Similar to Rubber.

M. Col of Paris has discovered that a substance similar to rubber may be obtained from the Japanese spindle tree. The announcement was made to the Academie des Sciences.

REINCARNATION OF MAN.

"There are in Theosophy two central doctrines—the doctrine of Reincarnation, and the doctrine of Karma."

It is interesting to watch goldworkers at work in a gold leaf refinery. These men, whose skins are sallow from the stains of gold, take up ingots first of the virgin metal, pass them between steel rollers, whence they come forth like pie crust, and pass them then through closer and closer rollers, until they are sheets of gold ten paper. They are the sheets of gold that are called goldbeaters' skins, and men beat them through the skins with mallets until they are reduced to an unimaginable fineness. It has often been proved that a skilled goldbeater can turn out gold leaves so thin that it would take 282,000 of them to make the thickness of an inch; so thin that, if formed in a book, 1,500 of them would only occupy the space of a single leaf of paper.

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Doth pass to Better—Best.

The doctrine of reincarnation is that each man dwells in the flesh not once, but often. His internal, indestructible self comes again and again into earth life, each time in a different race, family, condition, so that he may form of test and experience assimilate Karma, and at last emerging with an exhaustive knowledge of humanity and a perfected character. He is not a thousand men compounded into one, but one man who has had a thousand lives. As a world-wide traveler learns the peculiarities of each region and people, himself becoming mentally more supple and more vigorous as the result of travel; so the Ego learns as humanity through having been identified for a time with each section of it, and becomes not a Chaldean, a Roman, or an American, but a man. And as the traveler dwells, now in a tent, now in a hotel, ever imagining that his surroundings are other than transient and unessential; so, too, the Ego dwells in temporary homes of body, a craftsman, a slave, a student; each being an encasement for a single life, not one being any part of the Being which outlasts them all."

Burglars Ring Up Homes.

Burglars in New Rochelle, N. Y., have adopted the scheme of ringing up residence telephones to learn if any one is at home before proceeding to loot the house. Four dwellings were robbed in one night by that means last week.

By the Will of the Baroness.

Nathaniel Rothschild the Paris Conservator has just come into possession of a valuable collection of MSS. of the works of Chopin and Auber. Polka dots of all sizes and sorts are in evidence.