

**THE FARAWAY STARS**

Color Serves as an Index to Their Age.

WHAT MAKES THEM TWINKLE?

Theories That Deal With This Phenomenon—The Intervention of Fragments of Disrupted Solids or the Effect of Air Currents.

It is a question that has exercised the mind of many a gentleman of science, and it is known that only the twinkling of the planets giving out light. That is the way we see a star from a planet with the eye.

Why does the star twinkle at all? The answer to this seems to be on account of the greater distances of the nearest fixed star being seven thousand times farther from us than the farthest planet. So around a starting point have been built theories. One is that as the angle, or angle subtended by the star from the eye, is so very small very small bodies in space come between the star and the eye and give the effect of twinkling.

As regards those small bodies being in space as hypothetical there is no doubt, for there are millions of fragments of disrupted worlds around in orbits about our sun. The question is whether there are any to cause the eternal twinkling observed. Science cannot say enough do not exist, for she cannot prove the existence of the small fragments that actually could cause it, even with her finest instruments.

Illustrate, then, my meaning as this covering of the visual suppose you take a dime between your thumb and finger and hold it between your eye and the moon until it just covers the moon. It will be quite close to the eye. Now hold it between your eye and the quarter moon. Its distance is seen to be about four times that from the eye. Thus it is seen the farther outward the object is the larger the object necessary.

Now take a dime or even a pin and no matter how far you hold it from the eye it will easily cover the star in the heavens. This is a point of the enormous distance of the stars, the lines drawn from its sides eye enclosing an angle so minute almost anything will fill it. So we see that this theory is not impossible, though perhaps somewhat inadequate.

Other theory bases its argument on air currents. Air currents are by light and heated air rising and heavy air taking its place. When light goes from a heavy gas, or vice versa, it is bent by the other. So this would happen to the light from all heavenly bodies. The reason it is not in the case of the planets is that they send us many rays as compared to the stars.

Reasons are put forward to be the truth of this theory. A star is more on the horizon than it is at the zenith, for its light has to pass through a greater thickness of air; also greater twinkling is seen in winter than in summer, and rapid and brilliant twinkling is a very good prophecy of snow, as it shows the upper part of the air to be in a state of motion of varying air currents, and cold currents meeting, coming and rotating probably.

It also accounts for the changes in brightness of a star, for at times not all of its light is bent from the eye. It has been noted that a star's color has some connection with its twinkling on account of the different refractivities of the different colors. A white or blue star, like the Dog star, twinkles at times comes the yellow and last if one cares to look for a red star, it is one and can be seen in one corner of the constellation.

Another interesting thing has been noted in astronomy as regards the difference between the color of a star and its age. The white or blue stars are the young or in the prime with many more million years of life, while a red star, as Sirius, is on the wane and will gradually fade out in the next few million years if it doesn't. The yellow stars come between the blue and red in point of age. It is interesting to find that our own sun is a white star. —A. L. Chalmers Commercial Tribune.

**Buying Diamonds and Gold.**  
The weight of diamonds and other stones is expressed in carats. There are four quarters in a carat. They are equal, one of which is equal to a troy grain. Four quarters make one grain and four grains make one carat. The fineness of gold is expressed in carats. Pure gold is four carats fine. The carats indicate the proportions. Most of the gold used by the jeweler is about fourteen carats fine, and is an alloy.

**The Pessimist.**  
The pessimist stands beneath the tree and says: "Why that dog bite me? Dog Owner (scornfully)—Do you suppose he has no instinct of self preservation?" —Baltimore American.

The wisest man who is in the world.—Wordsworth.

**PLAYING THE STOCKS.**

He Who Has Knowledge and He Who Gambles on Gossip.

Of the many popular delusions touching Wall street and its people none is more persistent or more dangerous to the outsider than the belief that from nothing great permanent fortunes have been made by shrewd and lucky speculation in prices. It isn't true. We differentiate here between speculation in prices only and the kind of legitimate speculation which seeks to anticipate great economic changes. Legitimate speculation has its translation into prices, too, but it takes, first, original capital in some reasonable proportion to the profits expected and, secondly, the treatment of exceptional opportunity with correct imagination. Its risks at best are very large. Among our Wall street acquaintances are several hard headed men who succeed in making \$25,000 a year by speculation. Not one of them has a capital of less than \$250,000. They make it earn about 10 per cent.

Take Blank, one of the ablest speculators we know. He has made half a million dollars during the past five years. Very handsome return, you say. Let us look at Blank. He was the chief accountant of one of the big railway systems when an uncle, dying, left him \$20,000. Mind you, he was an expert railway statistician and an exceptionally able young man to boot. He knew his own road like a book, as well as some other things that only the directors were aware of. The stock of the system looked cheap to him, and he used his \$20,000 to margin 4,000 shares. A bull market was beginning, and within a month or two Blank's capital had increased to \$60,000. He was content with a ten point rise, though the stock advanced ten points more. That was the first of Blank's deals. Twelve months later he won again. He thought that the stock of a certain western system was selling below its value and set about an investigation to find the facts. He hired a first class engineer and a retired traffic manager to travel from one end of that railroad to the other, and he himself analyzed the accounts. When all the reports were in it seemed to him that the system was earning enough money to justify an increase of its dividend, and he plunged once more. He waited six months for his point this time, and his investigation had cost him \$5,000. He made \$50,000. Good interest, you say, but think of Blank's special equipment for the game and the trouble he took to be right. You, Mr. Thinmarginist, after reading the Wall street gossip in your daily paper, adventure your thousand or two thousand dollars and expect to double your money. Mark the difference.—John Parr in Everybody's Magazine.

**Tennyson's First Poems.**

The wind came sweeping through the garden of an old Lincolnshire rectory one morning in the beginning of last century and blew upon a child of five years old, who opened his arms to the blast and let it carry him along, crying as he traveled, "I hear a voice that's calling in the wind." That was Tennyson's first line of poetry. That first poem he ever composed was written upon a slate one Sunday morning at Louth. The subject, set him by his brother Charles, was "Flowers," and little Alfred covered his slate with blank verse after the model of Thomson's "Seasons." His next attempt was an elegy upon his grandmother, who had just died, written at the request of his grandfather. When it was written the old man put 10 shillings into the boy's hand and said, "There, that is the first money you have ever earned by your poetry, and take my word for it, it will be the last."—Westminster Gazette.

**Opening an Oyster.**

"The Cook's Oracle," a book which was never far from the kitchens of our great-grandmothers, is very precise in its directions as to the proper manner of preserving and eating oysters, says an English journal. "The true lover of an oyster," writes the author, "will have some regard for the feelings of his little favorite and will never abandon it to the mercies of a bungling operator, but will open it himself and contrive to detach the fish from the shell so dexterously that the oyster is hardly conscious he has been ejected from his lodging till he feels the teeth of the piscivorous gourmand tickling him to death."

**This Was in Denmark.**

An Englishman having business in a certain Danish town arrived at the railway station. He inquired of a group of men standing near the way to the house he wanted, whereupon one of them offered to go with him and show him. With recollections of what such a service meant in England he said, "I don't want a guide." "But surely you asked us to show you the way," said one of them. "Yes, but I don't want a guide." "My dear sir, I am not a guide; I am the bishop."

**Romance in High Life.**

"So that heiress is engaged to a nobleman."  
"Yes."  
"And you say the affair was romantic?"  
"Oh, very. Why, the duke was even too poor to hire a lawyer."—Kansas City Journal.

**Afraid of Consequences.**

Dog Hater (tremulously)—See, how sir! Will that dog bite me? Dog Owner (scornfully)—Do you suppose he has no instinct of self preservation?—Baltimore American.

The sagacious are generally lucky.—Blackwood.

**ARAB FASHIONS.**

Clothes the Natives Wear and the Tailors Who Make Them.

Conservative in all matters, the Arab is especially averse to change in the matter of clothes. Not only do the fashions of the Arabs never change, writes Graham Petrie in "Tunis, Kairouan and Carthage," but they are very restricted. Although every Arab wears a gandoura more or less richly embroidered, it is always worked in one of three accepted patterns, from which no deviation nor any combination is permitted.

The only matter in which personal taste is allowed to show itself is in the choice of color. In this respect entire freedom is permitted and taken full advantage of, although it is curious to note that the more delicate shades of pink, yellow and mauve are generally worn by elderly men, while rich red and brown are in favor with their juniors.

The souk-el-trouk is the souk of the tailors in Tunis, and here in numerous little shops the sartorial needs of the Arab population are fashioned and temptingly displayed. I call them shops for want of a better word, but they are as unlike the European shop as anything one can imagine. They are really recesses separated from each other by coupled columns painted with stripes of red and green, which support a continuous cornice, richly carved and colored. There are no windows or doors, and the shop is raised some four feet above the ground. To this elevation the tailor nimbly vaults, for there are no steps to assist him. Sitting crosslegged in orthodox fashion, he then cuts out, pieces together and embellishes the gay silk waistcoats, gandouras and other garments beloved of the Arab.

**MAINE SPOOKS.**

A Ghost House, a Phantom Light and a Mystic Woodchuck.

Bowdoinham boasts a veritable ghost house where it is said the chairs refuse to stay quietly in their places, but in the middle of the night walk out and draw together in groups just as if guided by visible hands. Then there is a spirit cane that goes walking all by itself just at midnight, tapping its way along from room to room and finally taking up its abode in the chamber where a member of the family sleeps. That this statement is true is affirmed by those who have seen the phenomena and who are not at all afraid of ghosts.

At another house in the village is a phantom light that shines each night no matter whether it be moonlight or darkness just above the closet door in the upper chamber. For years this light has disturbed the people who at different times have occupied the room, and some have been much afraid of the flickering gleam. From time to time different explanations have been offered, but none has proved satisfactory. The light continues to shine, and no one can account for the mystery.

Down at Lazy O camp is a spook woodchuck which every evening, just at the sunset hour, comes out of an old family tomb, halfway between the camp and the home farm. There on the tomb he sits quietly, watching the sunset lights on the waters of Merry-meeting. Just as the sun sinks below the horizon he disappears. The tomb swallows him up, and he is seen no more until the sunset hour comes round again.—Kennebec Journal.

**Arab Buttermaking.**

Among the Arabs an interesting department of woman's duty is dairy work. This, like all other operations, is carried out on an old fashioned and patriarchal plan. To make butter, for instance, a small sheepskin is filled with milk and tied to a ring in the wall. The woman then sits flat on the floor and rocks it to and fro till little balls of butter begin to form within. These grow larger and larger and accumulate and are finally brought out as one big lump. The remaining milk is then boiled on the fire with bits of meat. The male members of the family now come together. A large dish of cooked rice is placed before them and the boiled milk poured over it. Then, making balls of the mixture with his hands, each member quickly swallows his share and rises to wash his hands. This done, the girls and mother sit down and eat what the men are pleased to leave.

**Hats and Old Age.**

In opening the services one Sunday recently the pastor of one of the fashionable churches said: "For three Sundays I have asked the women in this church to remove their hats during service. My appeal has been unheeded, and now I see wherein I was wrong. I was inconsiderate of the comforts of the aged and infirm, so I have made a new rule. Hereafter all women of forty years of age or over will be permitted to wear their hats during the service."

Within twenty seconds every woman in the church was bareheaded.—Ladies' Home Journal.

**His Last Place.**

"But," said the merchant to the applicant, "you don't furnish any reference from your last place."

"You needn't worry about that," replied the man with the close cropped head and strange pallor; "I wouldn't be here now if it hadn't been for my good behavior in my last place."—Catholic Standard and Times.

**A Great Care.**

Celia—Her hair turned perfectly white in one night from trouble. Della—Really? What was the nature of the trouble? Celia—Chemical.—Judge's Library.

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