

A POPULAR ASTRONOMICAL ERROR.

One of the boldest speculations in astronomy, and one that has a peculiar fascination for most intelligent students of science, is the hypothesis suggested by the great astronomer, Mädlar, that the stellar universe has a motion about a great central sun, the latter being Alcyone, the brightest member of the star group known as the Pleiades. The great reputation of Mädlar, caused his announcement at the time to be received with general acceptance; but subsequent investigation of the subject made it apparent that the hypothesis was founded upon such very slender evidence that it has been rejected by astronomers as unproved, though, like most attractive errors, it still holds its place among popular beliefs.

Prof. Proctor, in a late publication, dwells particularly upon this hypothesis of a central sun, and makes it the text of some reflections as to the tenacity with which certain errors retain their hold upon men's minds. From his criticisms of this hypothesis, it would appear that Mädlar's idea never received much credence among astronomers, as the evidence that he presented in support of it was exceedingly feeble. It appears that Sir John Herschel pointed out how very unlikely it was that the centre of the Milky Way—if such a center there really is—could lie so far away from the mean plane of the Milky Way as the Pleiades. And Proctor, on the same subject, has shown that the only piece of positive evidence advanced by Mädlar—namely, the drift of the stars of the constellation Taurus in one direction—was really no evidence at all, for the excellent reason that a similar drift, in other directions, can be recognized in other regions of the starry heavens.

Proctor asserts that no astronomer of repute would now venture to maintain the theory that Alcyone of the Pleiades is the central sun of the stellar system, and that scarcely any one of them would admit the probability of there being any central sun at all. In spite of all this, however, the belief is still widely spread among the general public that Alcyone is the central sun; and, as Proctor remarks, the theory seems to excite far more interest than most of the real discoveries—many of them of vast importance—that have been made during the past half century.

It may be well, therefore, in view of the attitude of the learned world towards the speculation of Mädlar, and the pointed declarations made on high authority, that the hypothesis never had anything but a species of tolerance among astronomers by reason of the great reputation of its author, and the fact that the only piece of positive evidence in its favor has been completely nullified by similar evidence of a contradictory nature—to consider the idea to be an unfounded speculation.

FRENCH BREAD.

As a rule, French bread is always sweet and good, and two things contribute in a great degree to this—that is, the manner and form of baking. They never make a thick loaf; no matter what the size or shape, it is always thin, and more than two-thirds crust. They bake their bread until it is perfectly cooked. The loaves being so thin, the heat strikes through them very soon after they are placed in the oven; hence all the fermentation is stopped while in the case of large loaves fermentation continues to go on after the bread has been in the oven for some time, and of course, much of the sweetness is lost. Then in baking so long and having so much crust, there is a peculiar sweetness given which can be attained in no other way.

BATHING.

Once a week is often enough for a decent white man to wash himself all over, and whether in summer or winter, that ought to be done with soap, warm water and a hog's-hair brush, in a room showing at least 70 degrees *Fahrenheit*. If a man is a pig in his nature, then no amount of washing will keep him clean, inside or out. Such an one needs a bath every time he turns round. He can do nothing neatly.

Baths should be taken early in the morning, for it is then that the system possesses the power of reaction in the highest degree. Any kind of bath is dangerous soon after a meal, or soon after fatiguing exercise. No man or woman should take a bath at the close of the day, unless by the advice of the family physician. Many a man, in attempting to cheat his doctor out of a fee, has cheated himself out of his life; aye, it is done every day.

The safest mode of a cold bath is to plunge into a river; the safest time is instantly after getting up. The necessary effort of swimming to shore compels a reaction, and the effect is delightful.

The best, safest, cheapest and most universally accessible mode of keeping the surface of the body clean, besides the once-a-week washing, with soap, warm water, and a hog's-hair brush is as follows:

Soon as you get out of bed in the morning, wash your face, hands, neck and breast; then, into the same basin of water, put both feet at once, for about a minute, rubbing them briskly all the time; then, with the towel, which has been dampened by wiping the face, feet, etc., wipe the whole body well, fast and hard, mouth shut, breast projecting. Let the whole be done within five minutes.

At night, when you go to bed, and whenever you get out of bed, during the night, or when you find yourself wakeful or restless, spend from two to five minutes in rubbing your whole body, with your hands, as far as you can reach, in every direction. This has a tendency to preserve that softness and mobility of skin which is essential to the health, and which too frequent washings will destroy.—*Journal of Health*.

BREAD.—The indigestion and dyspepsia so rife in the United States can be traced almost to the use of alum in bread-making. Alum is an astringent, and taken into the stomach daily cannot fail to produce chronic constipation, followed by a train of serious complaints. The high price of cream of tartar tempts dishonest manufacturers to substitute alum for it in the preparation of the innumerable baking or yeast powders in the market. It is said that there are 500 different brands of powders, and 499 of these have been declared adulterations. Thus the people continue to be poisoned by mercenary merchants, while the authorities sit still and see the work go on. In California we have what is called a State Board of Health, which is kept up at a considerable expense to the State. What good results from the commission, the public have no means of knowing. It would seem that the examination of the yeast powders in the market, and the punishment of the culprits, would properly come under its province. Let them move in the matter.—*Cal. Medico Literary Journal*.

An ingenious method of measuring the quantity of moisture in the air has been devised by Herr Rudorff, who lately announced it to the German Chemical Society. It consists in admitting to a measured volume of air, contained in a suitable glass chamber, a small quantity of sulphuric acid from a graduated tube with stop-cock. The acid absorbs all the aqueous vapor contained in the air, thereby reducing the pressure in the chamber. This diminution of pressure is shown by means of a manometer connected with the vessel. Sulphuric acid is then admitted in drops until the original pressure is restored. The absorbed aqueous vapor is thus replaced by an equal volume of sulphuric acid, and by calculation the percentage of vapor that the air had carried can be readily ascertained. The method is said to give very accurate results, and the operation makes a good lecture experiment.

HARDENING GRAVERS AND SMALL DRILLS.—An English gentleman who has been famous as an amateur for the fine work he has done details at some length a method which he has employed for many years for producing a hard, tough temper in graving tools, small drills and other small steel tools. The steel is heated in charcoal dust. Great care is taken, however, that the heat is not too great, as this would probably injure the tool. It is then plunged at once into a box of wet, yellow soap. This renders the point of the tool very hard, and at the same time very tough—so tough, indeed, that it is said that the tools may be bent in many cases without drawing their temper. The recipe was published, we believe, more than 40 years ago, though we have been unable to trace it.

CARE OF MILK.—A writer in a recent number of *Nature* says that milk is especially liable to be affected by the atmosphere about it, whenever it rests in open vessels. In the cleanest pantry or larder, it gathers the effluvia of meat, cheese, onions, bread, fruit and such matters; the result being that it is soured and spoiled. In kitchens, nurseries, living and sleeping-rooms, closets, etc., the case is worse. Nature intended that milk should be drunk at once at its source; and it is very likely that exposure and delay impairs its power of nutriment. Milk should be kept as much as possible in close vessels.

HERR RUDOLF FALB, a well-known astronomer, has returned from his travels in South America, and believes he has made important discoveries as to the original language of the human race.