

Milky Way, is not obvious, as I am not aware of the existence of any fable bearing on the point.

D. SILVAN EVANS

IN reply to Mr. Reeks, I was quite correct in stating that the wind would blow in the course of the Milky Way; and to be sure of it, I have communicated with my friend at Llangadock, who has repeated what I have previously stated. He also tells me that on Sunday night (the 11th inst.) he looked out and found the "wind blowing from the east, and the Milky Way was to be seen coming from the north-east." He still thinks it possible to predict the weather by this kind of observation. However, apart from this, the Welsh word is sufficient to prove the correctness of my former letter, which means the "Road of the Wind."

Dec. 13

JOHN JEREMIAH

#### Meteoric Shower

I OBSERVED a most beautiful star-shower on the night of the 5th inst., at about a quarter to nine o'clock. It crossed the "tail" of Ursa Major in a direction almost easterly, and slanting towards the earth at about an angle of 30°. At first the phenomenon resembled the flight of a flock of wild geese, but after a little the nearer stars inclined towards the earth more than those farthest away, so that in all I could see about thirty stars. I write to you as the period of recorded star-showers mentioned in Prof. Ansted's Physical Geography, is from Dec. 6th to 13th, and I observed this star-shower on the 5th December.

The Commons, Killybegs, Dec. 14

JOHN C. WARD

#### Hereditary Deformities

THE articles upon this subject in NATURE, Sept. 8, Oct. 20, and Nov. 3, remind me of what I learned fifteen years ago while visiting tribes of Sioux Indians, assembled to the number of 5,000, near the mouth of the Yellow Medicine River, in Minnesota. The Indians were collected at this point for the purpose of receiving their annuities from the U.S. Government, and were accompanied by their families. It is customary for the squaws of their tribes to have tattooed upon the prominences of their cheek-bones small discs, of from one-eighth to one-fourth of an inch in diameter. I was informed by a physician, who has passed much of his time with these tribes, that sometimes a child was born with these marks. This was confirmed by the U.S. Government Indian Agent. I had no means of verifying these statements; they were believed by my informants, who were gentlemen of veracity.

CHAS. M. WETHERILL

Lehigh University, Nov. 19

#### Right-handedness

CANON KINGSLEY is a close observer of nature, and if his generalisation be correct in the following instance, it would seem that the tendency to develop the right arm to the comparative neglect of the left is not confined to man. In describing the call-crabs of Montserrat, he says that one of the claw-arms, generally the left, is dwindled to a mere nothing, and is not seen, while the other is disproportionately large. I am well aware that the claws of lobsters are seldom equal in size, but have had no opportunity of ascertaining whether it is the right or the left claw which is superior, nor whether there is any rule in the matter.

C. J. R.

#### Sun Stroke

IN the *Revue des deux Mondes* for the 15th August (page 854), there is a remark which, though somewhat exaggerated, is of very great value and practical significance. The writer says, "The phenomenon known as 'Sunstroke' is due to the action of light, and not, as is generally believed, to the elevation of temperature." An exception has to be made in cases where the sun playing, especially on the back of the head and neck, produces unmistakable sunstroke. Every surgeon practising in the East also meets instances of "solar apoplexy," which present themselves as often as not during the night, but only in the excessively hot weather. However, I know from personal experience that it is quite possible to lay oneself up completely with intense headache, constant nausea, cold extremities, &c., by exposing the

eyes only to the glare of the sun, the head and neck being completely sheltered by a helmet and *puggree*, and the body being at rest in a carriage. Further, I have found it possible, when accidentally obliged to expose myself, to avoid all inconvenience by merely wearing deeply-smoked glasses, my head being guarded only by an ordinary felt hat. But this is an experiment not to be tried rashly. The conclusion obviously is that whenever there is an intense glare, whether attended by intense heat or not, the first condition to fulfil is to shelter the eyes. As the retina is in truth an expansion of the brain, the brain is more accessible to external influences through the eyes than through any other avenue.

R. A. JAMIESON

Shanghai, Oct. 24

#### GLYCERINE EXTRACTS OF PEPSIN AND OTHER FERMENTS.

A SHORT time ago Von Wittich published in *Pflüger's Archiv* some interesting results of an attempt to isolate, by means of concentrated glycerine, pepsin and other so-called ferments found in animal and vegetable bodies.

The mucous membrane of a pig's stomach, washed and freed as much as possible from water, was finely minced and bruised, and then covered with pure glycerine. After standing twenty-four hours, a few drops of the glycerine, diluted with acidulated water, digested fibrin with remarkable rapidity. After pouring off the whole of the glycerine, a second, third, and even fourth glycerine extract could be made, all manifesting strong peptic powers. On treating, after filtration, these glycerine extracts with a large excess of alcohol, a slight precipitate was obtained, which, separated by filtration and re-dissolved in acidulated water, though giving only the faintest proteid reaction, was strongly peptic.

In a similar manner salivary gland and pancreas gave up to glycerine an amylolytic or starch-converting ferment, almost entirely free from proteids, and a "laden" pancreas also gave up a ferment capable of digesting fibrin in an alkaline medium. Barley (*not germinated*) gave up to glycerine a non-proteid diastase; and almonds a ferment capable of acting on amygdalin.

I have repeated many of Von Wittich's experiments with almost entirely similar results. We certainly have in glycerine a new means of working out the intricate problems of these so-called ferments. The glycerine extracts, for the most part at least, seem to remain unchanged for a very long period, so that a stock of ferment can always be kept in store. On the other hand, tissues may, by repeated extraction with glycerine, be exhausted of their ferment, and yet little, if any, otherwise changed, so that they can be examined under conditions hitherto impossible.

Not the least value of the new method lies on the practical side. The means hitherto adopted of preparing the so-called pepsin for medical purposes are confessedly clumsy and inefficient. By glycerine we can now extract, without any trouble whatever, a pure palatable peptic liquid, one which apparently will last any length of time. It is, moreover, to be depended on for its peptic powers; any one who has fairly tested by actual experiment the various "pepsines" of commerce, will understand the value of this remark.

M. FOSTER

#### NITRO-GLYCERINE AND GUN-COTTON

IT may be of some interest at the present moment to give a brief summary of certain comparative experiments undertaken with nitro-glycerine and gun-cotton, with a view to ascertain their respective destructive nature and safety of employment as industrial or warlike agents. As it is occasionally inconvenient to employ a material of this kind in the form of a liquid, a modification of nitro-