

of six in the latter case (minimum) *above* average; also including (say) two of the following years in each case, a tendency to excess of - values in one case, and of + values in the other. If the amounts of excess and deficit be further considered, the average deficit in the one case, and excess in the other, is distinctly the greater.

(Two averages have here been used, dividing at 1870.)

We have considered six months of the year. But the same tendency may be discerned in individual months, and other combinations of months. June and August show it very well; also (less distinctly) the whole summer group (June to August).

If any one will take the trouble to compare smoothed curves of June temperature at a number of European stations, he will find, I believe, that most of these agree in the feature considered, and that one supplements another. Thus the correspondence with the sun-spot curve may fail somewhat at a particular point in the case of one station; but another curve agrees better at that point, and so on.

A comparison of six months' curves for other stations seems desirable. The Greenwich curve, I think, shows the influence, but less fully.

In such selections and comparisons of portions of the year and different stations, an analogy might be traced to what occurs in looking at something through a microscope. We screw the tube out and in, and at one point get a generally clear image; with another position, part of the image is blurred and part rendered more distinct; with still another, there is a general blurring, and so on.

The rainfall of Bremen, especially in the summer half, also presents interesting features in this connection (see *Met. Zeits.* for 1895, p. 120).

Several of the monthly curves show a tendency to high values near maximum sun-spots. I have here combined the rainfall of August and September in a smoothed curve (*c*). The maxima and minima, it will be seen, correspond pretty closely with those of the sun-spots.

Has not a too mechanical conception regarding sun-spots and weather prevailed in the minds of some? In view of the great instability and variability of weather, is it not rational to suppose that the thing to be looked for may be merely of the nature of an average effect, a tendency, a preponderance? The position, further, that if sun-spots affect weather, they must affect it everywhere in the same way, I believe to be untenable.

A. B. M.

An Antidote to Snake-Bites: "Scorpion-Oil."

I CAME across the following popular remedy last June, when at Kandersteg. Since my return to England I have written to the guide, Abraham Müller, and here give the substance of his answer to my request for more exact details.

Every year Italian scorpion-sellers traverse Switzerland, especially the mountain-valleys thereof; in the lower land and towns the remedy can be obtained at the chemists', and these buy their scorpions direct from Italy. It is usual to take, say, a half-litre of good olive oil (at the time he told me it was walnut oil; perhaps this is commoner and cheaper?), and throw therein about ten living scorpions. The scorpions are left in the oil until they die—say twelve or twenty-four hours. They are then taken out and thrown away, or the oil is poured from off them into a bottle.

In the case of poisonous snake-bites, or poisonous "*Insektenstichen*," the wound is first, if possible, washed out with salt water. The scorpion-oil is then rubbed in, and all round over the swollen part, the rubbing being towards the wound.

In the case of other "*gichtigen¹ Schnitten, Stichen, Guetschungen, gichtigen Geschwülste und dergleichen*," the oil is applied in like manner, only it is not poured into the wound, as it is too "*scharpf*."

The custom is centuries old, and (my informant believes) very widely spread in Switzerland. He could find out more details, if required, from a chemist.

In general the application is external only; but there are men who, when suffering from great internal pain of which they do not know the cause, drink some drops of the oil in camomile tea. (Result not stated!)

The scorpion-oil is used for men and animals alike.

¹ I think that *gichtigen* must be an error for *giftigen*; it cannot well be *gichtigen* when used with *Schnitten*. My knowledge of German does not enable me to translate *Guetschungen* or *Gnetschungen*. I have given these few words in the German to avoid confusion.

It seems to me that, since the oil rubbed into the wound caused by a snake or an insect doubtless contains some scorpion poison, the above is of interest in connection with the recent experiments in inoculation. (*NATURE*, vol. liii. pp. 569, 592.)

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W. LARDEN.

Chameleonic Notes.

MR. BARTLETT writes me that they have no chameleon now in the Gardens, so that probably my little stranger is the only one in this country; and to the note on its habits, which you printed in your number of July 16, may I add the following: Little is known of these most interesting creatures, and the book knowledge is singularly discrepant. After being kept for nearly eight months under a large bell glass in my library, and fed with garden flies of all sorts, he began changing his skin. This, first, appeared to hang rather loosely in *milk-white folds* on his body, then he got rid of it bit by bit, squirming himself against the stick on which he was perched, and continually changing his attitude. He also used his feet *occasionally*, to help to rip off the old skin; and being very restless, this was all got rid of in one day. His general colour also changed from very light brown to very dark brown, then to light brown, and again to very dark brown, while the skin-shedding took place. He never seemed to care for any water all the time I had him. On being approached in a dark room at night, he appeared most conspicuously *white*, doubtless for protective purposes. I believe wild-fowl shooters are also in the habit of painting their boats and paraphernalia white in order to be less conspicuous. Turning the bright light of a lantern (with a powerful reflector) upon him, he immediately began *visibly* to darken, until in an extremely short space of time he had assumed the same colour as the brown twig on which he was sitting. These colour changes have, I think, never been satisfactorily explained; and their *rapidity* is not the least extraordinary phenomenon in these most curious creatures.

E. L. I. RIDSDALE.

Visual Aid in the Oral Teaching of Deaf-Mutes.

I MUST confess to being one of those unacquainted with Koenig's invention, but the object of the interesting experiment described by Mr. Hawksley in *NATURE* of October 1 is sufficiently evident from the results.

Since the experiments of MM. Marey and Rosapelly, and more recently the phonograph, rendered it possible to reproduce in a graphic form the sounds of the human voice, the question of the practical application of such visual reproductions in the oral education of the deaf has frequently been mooted, but so far without any useful result.

As is well known, the speech of orally educated deaf-mutes is not usually so natural, and hence not so readily understood, as that of those who hear. This is chiefly due to the absence of the controlling action of the hearing; but if this could be supplied by visual means, much might be accomplished.

If, therefore, some physicist would devise a simple and efficient apparatus by which an orally taught deaf-mute could test his speech to ascertain how far it corresponded in inflection, &c., with that of his teacher or other hearing person, and to regulate it accordingly, a great practical boon would be conferred on the deaf and their teachers.

Doubtless, as Mr. Hawksley says, the principle of Koenig's invention might be made useful to oral teachers, but a simpler application of it than is exhibited in his experiment would be desirable, and indeed necessary, before it could become generally available.

A. FARRAR, JUN.

October 2.

A Remarkable Lightning Flash.

THE "remarkable lightning flash" depicted by Mr. George G. Burch in *NATURE* for September 24, is to me interesting. Many years ago I witnessed what was probably a flash of the same kind, a phenomenon I considered at the time very extraordinary. In the early evening of a fine summer day, while sitting leisurely on a hedge on a comparatively high hill near to Llandyssul in the county of Cardigan, with an immense area of country within reach of my vision, there appeared, slightly above the horizon in the west, what seemed to be a perfectly endless flash, almost circular in shape, and exceedingly serrated.

There was not a single stray end to be seen, as in Mr. Burch's flash. I heard no thunder, and I knew from the faintness of the