

be glad of information as to the best method of working direct on to sensitised paper, to save the time and expense involved in taking glass negatives.

Lincoln, December 7

G. M. LOWE.

"Chelidonium majus" as a Cure for Cancer.

WITH reference to the probable value of *Chelidonium majus* in the treatment of cancer, I beg to enclose the two following extracts from ancient writers for the purpose of showing that its value, for internal use, was not unknown.

In the "Ortus Sanitatis," of J. A. Cuba, published at Mayence in the year 1491, he makes the following remark, *inter alia*, upon the property of this plant.

"Et ad cancrum oris pulvis radicis cum pulvere rosarum conficitur, et cum aceto decoquitur."

Again, Bodæus à Stapel, of Amsterdam, in his edition of the "Historia Plantarum" of Theophrastus (1644, p. 894), after describing the method of preparing a decoction of the plant, says:—

"Primi liquoris seu elementi aquei usus existimatur, quod *intra corpus sumptus*, omnes humores corruptos et perniciosos corrigit et educat."

Barton and Castle, in their "Flora Medica" (1838), remark that "Linnaeus, Murray, Gilibert, and others express their astonishment at the oblivion into which a plant so energetic as the Celandine has fallen, while the ancients knew how to appreciate its qualities."

C. LEESON PRINCE.

The Observatory, Crowborough Hill, Sussex, November 26.

Measurements of Crabs.

THE crabs measured by Prof. Weldon, which were 12·5 centimetres long, had the ratio of frontal breadth to carapace length equal to 778·39 thousandths with a quartile deviation of 10·79; the adult crabs had the above-mentioned ratio 604·94 with a quartile deviation of 9·96. He concluded that since 9·96 is less than 10·79 the adults were less variable than the young, and that this diminution of variability might be accounted for by the selective destruction of those young crabs in which the ratio of frontal breadth to carapace length was much greater or less than the average. That Prof. Weldon was mistaken in making this inference may be shown thus:—

If he, in his investigations, instead of considering the ratio of frontal breadth to carapace length had considered its reciprocal, the ratio of carapace length to frontal breadth, he would have arrived at the result that those 12·5 centimetres long had a ratio of carapace length to frontal breadth amounting to 1284·7 thousandths with a quartile deviation of 17·9, while the adults had a ratio of carapace length to frontal breadth of 1653·1 with a quartile deviation of 26. This would have shown that the ratio of carapace length to frontal breadth was more variable (in Prof. Weldon's sense of the word) with adults than with the young. This, he would probably have argued, may be due to the selective *survival* of crabs in which the ratio of carapace length to frontal breadth deviates excessively from the average. But those crabs in which the ratio of carapace length to frontal breadth deviates excessively from the average are precisely the same as those in which the ratio of frontal breadth to carapace length deviates excessively from the average, which latter he concluded were selectively destroyed. Thus the same reasoning applied to the same data leads to two totally irreconcilable explanations. Such reasoning must be false.

Prof. Weldon's erroneous conclusion seems to have arisen from making the mistake he accuses me of making, *i.e.* confusing variability (the quantity measured by quartile deviation) with importance of variability. Having proved that variability in the above sense of the word was less in the case of adult than of young crabs in regard to the ratio of frontal breadth to carapace length, he argues about the diminished variability as if it were the same as diminished importance of variability, which is in the general case measured by ratio of deviation to average amount of the quantity measured.

J. A. COBB.

Minneapolis, November 25.

Diselectrification by Phosphorus.

IN No. 1410, vol. lv. of NATURE, Mr. Shelford Bidwell refers to the discharge of electricity by phosphorus when it is oxidised. In a paper published by Prof. Naccari (*Atti della Scienze di*

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Torino, vol. xxv., February 22, 1890) as well as in one of our own (*Wiedemann's Annalen*, xxxix. p. 321, 1890), you will find a record of this observation.

ELSTER AND GEITEL.

MANY thanks for sending me the above. I much regret that I did not know of the experiments referred to. I made a considerable search before sending you my letter; but it is so difficult to ascertain what has been done before, that one hesitates to publish anything.

SHELFORD BIDWELL.

Riverstone Lodge, Southfields, S.W., December 2.

Cultivation of Woad.

LATELY at Leighton Buzzard, I saw an old book, "E. Bowen's Complete System of Geography, 1743," in which some account is given of the growth and preparation of woad in Bedfordshire. There is a Woad Farm at Lathbury Bridge, near the confluence of the river Lovat, or Ouzel, with the Ouse, at Newport Pagnell, Bucks, and commented upon in the *Bucks Standard*, November 8. The author [name not given], after referring to the more ancient growth of woad, gives it as his opinion that, "this once largely used herb was grown on this farm at a later period, and hence its name."

The lands of the Woad Farm are alluvial clay and river gravel, and there is an osier-bed in the locality.

December, 1896.

A. C. G. CAMERON.

Dormant Seeds.

THE remarkable experiments of Prof. C. de Candolle reported on p. 21, and those formerly described of Prof. Giglioli, seem certainly to show that life in a seed may be prolonged indefinitely under suitable conditions; or rather, that so long as no destructive change occurs, the power of living, not necessarily life itself, persists in the protoplasm. It has occurred to me as *barely possible* that some seeds from amber might be made to grow. It sounds a very wild suggestion, but the conditions of perfect preservation, with protection from air and moisture, are peculiar, and should offer as good a chance as some of those arranged by Prof. Giglioli, or cited by Prof. de Candolle.

T. D. A. COCKERELL.

Mesilla, New Mexico, U.S.A., November 19.

The Arrangement of Branches of Trees.

MAY not the want of symmetry or the "anyhowness" of the arrangement of the branches of trees serve some highly useful purpose? May it not help to prevent the trees being overturned in the highest winds by the want of synchronism in the motions of the branches? I have never seen or heard of such an idea, and it may be open to serious objections; but some time ago I watched the branches of a large plane tree, still partially in leaf, during a high gale, and it seemed incredible the tree could stand, but for the fact that whilst one large limb was swaying one way, another would be swaying the opposite way, and so on, all plunging and bending anyhow, with no two in harmony. Some of the larger limbs would swoop down as others bounded up in a sudden gust, and some swaying laterally with the wind would be balanced by others at another part of the tree swaying against the wind.

The oak, the beech, the ash, and so on, have all this "anyhowness" of branch arrangement, they at the same time being our largest trees and most in want of it.

Do the early stages of tree evolution point to a more methodical mode of branching?

THOS. SWAN.

Maryfield House, Leslie, Fife, December 11.

Curious Purple Patches.

REFERRING to "Purple Patches," in NATURE of November 12, I have frequently seen patches like those mentioned, but not quite so large, on the decks of ships immediately after they had been scrubbed with *salt water*. I have also seen them in bad weather at sea when salt water was coming over the side. I never remember noticing them after rain, or at any other time than when salt water has been on the decks.

The idea I have always had, and heard others at sea speak of, is that they were small salt-water organisms squashed out by the foot.

I have noticed them most frequently on the Scottish coast, but I have also seen them in China. Out here I have not observed them.

E.

Mediterranean Station.