

situated in the tissue of the stem, probably the soft bast. In most other cases it seems to be attached somehow to the reproductive parts of the plant. The quantity that can be extracted from Clematis is, however, much less than from the other plants spoken of.

The ferment has also been found in the petals of the artichoke (*Cynara Scolymus*).

An account of the occurrence of this vegetable rennet would not be complete without its including the researches of Dr. Sheridan Lea on *Withania coagulans* (Proceedings of the Royal Society, 1883). These have, besides their scientific value, a direct bearing upon the commercial aspect of the question. Many of the natives of India refuse to have anything to do with cheese prepared by means of animal rennet, and there is consequently there a large field for the employment of the plant. Some years ago Surgeon-Major Aitchison sent home an account of the peculiar property of the *Withania*. The shrub grows freely in Afghanistan and Northern India, and the natives there have for a long time employed an aqueous extract of the capsules to curdle their milk. Some dried material sent from thence to Kew was used by Dr. Lea in his investigations. *Withania* is a genus of the order Solanaceæ, and has a capsular fruit, containing a large number of small seeds. In the dried material these seeds were enveloped in a coating of a peculiar resinous matter, which was probably the dried juice of the capsules in which they had ripened. The ferment was found to exist to a very slight amount in the stalks of the fruits, and to be extremely abundant in the seeds. From the ground seeds it could be extracted easily by maceration with solution of common salt and by treatment with glycerine. So extracted, it was found to be destroyed on boiling, but to be able to withstand moderately prolonged exposure to alcohol. Its activity in a fairly strong extract was quite equal to that of most commercial samples of rennet prepared from the stomach. It could, moreover, be kept with as great security as the latter by the aid of common salt and a little alcohol. Its commercial value is somewhat interfered with by the presence in the seeds, and in their extracts, of a peculiar yellowish-brown colouring-matter, which cannot be separated without destroying the rennet.

Since the publication of Dr. Lea's researches the writer has met with the ferment in the unripe seeds of *Datura Stramonium*, a plant belonging to the same order, Solanaceæ. In this plant, though present in the unripe seeds, it appears to be absent from them when ripe. Its exact distribution is, however, not yet determined.

The occurrence of this property in so many plants, and these not at all closely connected in other ways, leads to the consideration of what must be its physiological significance. It is perhaps not difficult to see why rennet should occur in the stomachs of young animals whose food consists chiefly of milk, but its importance in the vegetable kingdom must be independent of such a function. Further researches, still in progress, may perhaps throw some light upon this point. It is significant so far to notice that its occurrence is mainly in those parts which are especially connected with the reproduction of the plant, a fact which seems to point to a possible function in connection with the storage of proteid food materials for the nutrition of the embryo during germination.

J. R. GREEN.

THE METEORIC SEASON.

WE have now arrived at a period of the year which is full of interest to meteoric observers. The number of meteors visible has greatly increased, as compared with preceding months, and apart from this, observations may be pursued without the discomfort and inconvenience so often experienced on the cold starlight nights of autumn

and winter. The impending return of two rich showers is an additional incentive to those who may contemplate giving a little time to this interesting branch of astronomy.

From observations at Bristol on the nights of July 8, 11, and 12 last, it appears certain that the *Perseids* (which attain a maximum on August 10, when the radiant is at $45^{\circ} + 57^{\circ}$) had already commenced. On July 8 twenty-five meteors were counted between 11h. and 13h. 30m., and these included six paths which denoted a well-defined radiant at the point $3^{\circ} + 49^{\circ}$, a little south of Cassiopeia's Chair. The visible traits of the individual meteors traced from this radiant were identical with those exhibited by the *Perseids* which are displayed in August, and the fact that this radiant seen on July 8 is far west of the radiant usually remarked on August 10, does not negative the presumed identity of the two showers. The *Perseid* radiant which endures a considerable time, changes its position amongst the stars from night to night, and the extent and direction of this displacement will be seen by a reference to NATURE vol. xxxvi. p. 407, where I have described a number of observations secured at this station in July and August of last year.

When the moon leaves the evening sky towards the close of the present month, observers should watch for the reappearance of the *Aquariids* which are usually seen in marked abundance about July 27, 28, and 29. The radiant is near δ Aquarii, and the meteors are rather slow, usually ascending from low in the south-east, and the brighter ones throw off trains of sparks. Early *Perseids* are also numerous at the end of July, and the radiant is then closely south of the well-known star cluster χ Persei. Observers should register the paths of the meteors and determine the precise place of the radiant on each night of observation.

Bristol, July 13.

W. F. DENNING.

NOTES.

THE proposal that a Professorship for the exposition of the Darwinian theory should be established in connection with the Sorbonne has received the sanction of the Sorbonne authorities. Three members of the Committee by which the matter was decided were opposed to the scheme, but they did not vote against it. They simply refrained from voting. The Sorbonne has asked that the name of the proposed chair shall be changed. One or other of the three words, "evolution," "morphology," "phylogeny," is to be substituted for "philosophy."

THE Birmingham meeting of the Photographic Convention of the United Kingdom will be held from the 23rd to the 28th of July. A programme of excursions and local arrangements has been issued. The Convention will be opened on the evening of the 23rd inst., by the Mayor of Birmingham, at a *conversazione* to be held in the Masonic Hall in connection with an exhibition of photographs and photo-apparatus.

ON Thursday, the 12th inst., the anniversary meeting of the Sanitary Institution of Great Britain was held in the theatre of the Royal Institution. The Chairman, Mr. Edwin Chadwick, in opening the proceedings, claimed credit for the Sanitary Institution of Great Britain and like institutions for a large proportion of the reduced death-rate of the metropolis, which was now 14 in 1000. London in that respect compared very favourably with other places, the death-rate in Paris being 27, Vienna 30, and St. Petersburg 40. The medals and certificates awarded to the exhibitors at the Sanitary Exhibition held at Bolton in 1887 having been distributed by Mr. Chadwick, Dr. B. W. Richardson delivered an address on "The Storage of Life as a Sanitary Study." He began by referring to instances of long life in lower animals and in man. These, he said, by