

gardens, *Reduvius nomenarius*, Say, which might lead to some important physiological discoveries by those more closely devoted to entomological studies. Wondering what made some abrasion on the bark of a *Pinus cembra* on his grounds, he was attracted by a female insect of this species near it; and noticed that on the thigh of the middle leg the usual grey colour was of a polished black. Supposing that possibly the insect may have had something to do with the injury to the bark, through which the turpentine was oozing, he waited a few minutes to re-assure the insect—usually timid under observation—that there was no danger. It then went to work to take the turpentine with the heel of the tarsus of the fore leg, and place it on the thigh of the second leg. It took several dozen “heelsful,” winding it round the gathering ball on the leg, as one would wind a ball of string. After it had collected together a ball of turpentine about the size of a pin’s head, it gently wiped it off with the femora of the hind leg, and applied it to the anus, where it was very rapidly absorbed. It then walked very leisurely to the top of the nearest branch, when it flew away. This was in the end of September. He saw no more of these insects till a week afterwards, when he cut off a small branch on which was another female, and carried it to the pine tree, applying the branch to the stem so that the insect could walk on to it, without much suspicion of human agency in the matter. As soon as it got to the turpentine, it went through the same operation as the other one, taking two doses of it before it walked away; which it did leisurely, and with much apparent satisfaction. Up to this time he had not been able to find a male, so as to ascertain if it also had any similar use for turpentine.

Oct. 25.—“On the Stipules of *Magnolia* and *Liriodendron*,” by Thomas Meehan. An examination of the stipules of *Magnolia* affords some highly interesting facts; most, or perhaps all of which are known to leading botanists, but which do not appear to be as generally known as they deserve to be; and which facts may have a more intimate bearing on many of the questions connected with the laws of development than is suspected. On the upper point of the scar next the leaf blade are two small articulation points, where the membranaceous stipules finally parted from the leaf. Examining a leaf before these stipules have fallen, the main veins forming the skeleton of the stipules are found connecting with these articuli, and spreading out, diverge downward toward the base of the leaf. I suppose no one of experience in living plants doubts the possibility of the adhesion of some parts and the separation of others, so as to make new parts or organs. If such is desired, I would refer to the *adhesion* of the carpellary leaves by their backs in the capsules of *Staphylia trifolia*; and for *separation* to the pinnate leaf often formed out of an entire blade in *Fraxinus excelsior*, *heterophylla*, and many other plants with entire leaves which often have pinnate ones amongst them. The author stated his opinion that the stipules of *Magnolia* are not formed like the stipules of most plants, which are perhaps leaf portions which have never been well developed, but rather are the tolerably well developed side pinnules of a trifoliate or deeply auricled leaf, which in an early stage had adnate with the petiole, and by their edges, and thus formed the stipular sheath we see. This ternate division of the leaf is a marked character in Ranunculaceæ, and with this exposition of a ternate type in Magnoliaceæ, its claim to a place in the Ranal alliance, strong as it always has been acknowledged to be, is still more strengthened. It is impossible to suppose that a so closely allied genus as *Liriodendron* should be founded on a different type from *Magnolia*. We shall see that only very slight causes, which we can well understand, have made some of the chief foliar distinctions, and the few which we cannot prove from actual facts, can be made almost certain by parallel observations. The identity of type will in this way be manifest. There seems to be every evidence short of an actual witnessing of the fact, that the petiole in *Liriodendron* became adnate with the stem, and in this way the two lateral sections (stipules) were brought in contact with the stem with which they united. This would bring them nearer the sources of nutrition, and enable them to assume a more leaf-like and permanent character than if on the petiole. They become rather primary than secondary leaf organs, and this is just what we see them to be. Thus we may assume that *Magnolia* has typically a ternate leaf structure; that the stipules are the two lateral lobes which, by a peculiar process of adnation, became stipular sheaths after having been partially organised as leaf blade; and that *Liriodendron* differs from *Magnolia* only in possessing a greater power of adnation.

BOOKS RECEIVED

ENGLISH.—A Dictionary of Science: G. F. Rodwell, new edition (E. Moxon and Co.).—The Earth, vols. 1 and 2: E. Réclus (Chapman and Hall).—Dr. Bevan on the Honey-bee, new and enlarged edition: W. A. Munn (J. Van Voorst).
AMERICAN.—Theoretical Chemistry, part 1: G. F. Barker, M.D. (C. C. Hatfield, New Haven.)

DIARY

THURSDAY, FEBRUARY 2.

ROYAL SOCIETY, at 8.30.—On Linear Differential Equations: W. H. L. Russell, F.R.S.—Measurement of Specific Inductive Capacity of Dielectrics: J. C. Gibson and T. Barclay.—On the Uniform Flow of a Liquid: Rev. Canon Mosley, F.R.S.
SOCIETY OF ANTIQUARIES, at 8.30.—On Charters relating to Robertsbridge: C. S. Perceval, LL.D., Dir. S.A.
LIVEAN SOCIETY, at 8.—Natural History of Deep-Sea Soundings between Galle and Java: Capt. Chimmo, R.N.
CHEMICAL SOCIETY, at 8.—On the Development of Fungi in Potable Water: Dr. Frankland.
LONDON INSTITUTION, at 7.30.—On the Action, Nature, and Detection of Poisons: F. S. Barff.
ROYAL INSTITUTION, at 3.—Davy’s Discoveries: Dr. Odling.

FRIDAY, FEBRUARY 3.

GEOLOGISTS’ ASSOCIATION, at 7.30.—Anniversary Meeting.
ROYAL INSTITUTION, at 9.—Polarisation of Light: W. Spottiswoode, F.R.S.
ARCHÆOLOGICAL INSTITUTION, at 4.

SATURDAY, FEBRUARY 4.

ROYAL INSTITUTION, at 3.—Laws of Life revealed in History: Rev. W. H. Channing.

SUNDAY, FEBRUARY 5.

SUNDAY LECTURE SOCIETY, at 3.30.—The Origin, Migrations, and Development of Remarkable Parasites: Dr. Cobbold, F.R.S.

MONDAY, FEBRUARY 6.

ENTOMOLOGICAL SOCIETY, at 7.—On the Early Development of the Sexual Organs in Insects, and its bearing on the Origin of Species: Mr. Lowne.
VICTORIA INSTITUTE, at 8.—Evidence of the Egyptian Monuments to the Sojourn of Israel in Egypt: Rev. B. W. Savile.
LONDON INSTITUTION, at 4.—On the First Principles of Biology: Prof. Huxley. (Educational Course.)
ROYAL INSTITUTION, at 2.—General Monthly Meeting.

TUESDAY, FEBRUARY 7.

ZOOLOGICAL SOCIETY, at 9.—Notes on some points in the Osteology of *Rhea Americana* and *Rhea Darwinii*: Dr. R. O. Cunningham.—On the Arctic collection of Birds presented by Mr. John Barrow to the University Museum, Oxford: J. E. Harting.
ROYAL INSTITUTION, at 3.—Nutrition: Dr. Foster.

WEDNESDAY, FEBRUARY 8.

GEOLOGICAL SOCIETY, at 8.
ROYAL MICROSCOPICAL SOCIETY, at 8.—Anniversary Meeting. Election of Officers and Council.
SOCIETY OF ARTS, at 8.—On Ornamentation considered as High Art: Dr. C. Dresser.
ARCHÆOLOGICAL ASSOCIATION, at 8.

THURSDAY, FEBRUARY 9.

ROYAL SOCIETY, at 8.30.
SOCIETY OF ANTIQUARIES, at 8.30.
LONDON MATHEMATICAL SOCIETY, at 8.
LONDON INSTITUTION, at 7.30.—On the Action, Nature, and Detection of Poisons: F. S. Barff, M.A., F.C.S.
ROYAL INSTITUTION, at 3.—Davy’s Discoveries: Dr. Odling.

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