ternal disease. It seems equally difficult to say, whether the fungus is the cause or effect of the diseased leaf. As to remedies, these appear to be expected rather from climatic influences than from the sagacity of man, for all the propositions yet made may prove satisfactory in the laboratory, but are impracticable where any large area is to be operated upon."

THE subject of blight or disease affecting the plants in the tea plantations of India has been brought prominently under the notice of the Agri-Horticultural Society of India, a letter having been addressed to the society to the effect that the attacks of "blight and red spider having become of such a serious nature on many tea-gardens both in Assam and Cachar, but especially in the latter province, it is necessary that all possible information, with a view of mitigating the evil, should be obtained and made widely known." At a subsequent meeting of the society the line of action proposed, subject to the assistance of those interested in the matter, was to engage the services of an entomologist from England for the period of two years so that he might have time and opportunities to observe and carefully study the character of the several kinds of blight in their various localities, such observations to be published under the auspices of the society.

THE introduction of the Carob (*Ceratonia Siliqua*) into the Madras Presidency, a subject which occupied the attention of the Agri-Horticultural Society of Madras a few years since, has been again brought before the society. It is strongly recommended for cultivation in countries suffering from periodical droughts in consequence of its long roots penetrating a great depth into the earth, and because of the large quantity of mucilaginous saccharine matter contained in the pods, so that it might be largely used for feeding cattle, horses, pigs, &c. It is said, however, that although the seeds contain nitrogenous elements or flesh-making materials, they do not possess great nutritive properties, and the seeds being small and hard they are not easily masticated, and pass in their crude state undigested.

A PECULIAR request (according to the *Berliner Tageblatt*) has been made by the Society for Bird Protection to the General Postmaster in Berlin, viz., to make arrangements so that birds be not killed by the pneumatic post. The case is this: From the large air-compressing steam-engines proceed chimney-pipes to the roof, by which the required air is sucked in. The power of this suction-apparatus is so great, that both small and large birds, even pigeons, which happen to be flying over the tubes when the engine is in action, are helplessly drawn in and destroyed.

TAKING opportunity, lately, to observe with a Nicol's prism an uncommonly fine rainbow, which spanned the Oesthal in Baden Baden, M. Schiel found that with the prism in a certain position, the colours disappeared completely, and the prism was pretty dark. But on turning it through 90°, the bow appeared again in all its brilliancy. The rainbow is therefore perfectly polarised light. Several rainbows observed since have shown the same behaviour; but apparently only a very bright-coloured rainbow presents dark on the field of vision with the corresponding position of the prism.

THE additions to the Zoological Society's Gardens during the past week include a Macaque Monkey (*Macacus cynomolgus*) from India, presented by Mr. Thos. Dalby; a Galapagan Tortoise (*Testudo elephantopus*) from the Galapagos Isles, presented by Mr. W. H. Henderson; two Herring Gulls (*Larus argentatus*), European, deposited; a Common Nuthatch (*Sitta cæsia*), European, purchased; a Red Kangaroo (*Macropus rufus*), born in the Gardens.

SCIENTIFIC SERIALS

Poggendorff's Annalen der Physik und Chemie. Ergänzung Band viii., Stück 2.—Researches on the nature of the vowel "clang," by M. Auerbach.—On the interference of reflected light (concluded), by M. Lommel.—On the tension of liquid films, by M. Sondhauss.—On a fundamental law in dioptrics, by M. Most.—On the complementary colours of gypsum in polarised light, by M. v. Kobell.

Memoria della Società degli Spettroscopisti Italiani, November, 1876.—The paper by Prof. Young, of Dartmouth College, on the displacement of the lines in the solar spectrum caused by the sun's rotation appears here. Prof. Young used the spectra of the sixth and eighth orders obtained by a grating of 8,640 lines to the inch, a collimator of $2\frac{1}{4}$ inches diameter, and 16 inches focal length attached to the $9\frac{1}{4}$ inch equatorial. The observations were made chiefly on the D lines and the Ni line between them giving a result of 1·42 mile a second; this exceeds the result from ordinary observations of spots by 0·34 mile, and the author considers it a fact that the solar atmosphere really sweeps on forward over the underlying surface.—Prof. Tacchini gives a history of his journey up Mount Etna for the purpose of making spectroscopic observations of the sun. The spectroscopic and direct observations of the sun made at Palermo in October last appear here, also the drawings of the chromosphere for May, 1875.

December, 1876.—Father Secchi gives his catalogue of 444 coloured stars with notes on the spectra of the same.—Mr. Huggins contributes a preliminary note on the photography of stellar spectra, together with a drawing of the spectrum of α Lyræ.—Observations of the lunar eclipse of September 3, 1876, by A. Dorna.—Observation of the Perseids made at Palermo in August, 1876, by Prof. Tacchini and G. de Lisa.

Morphologisches Jahrbuch, vol. ii. part 4.—On fossil vertebræ and teeth, by C. Hasse, dealing especially with fossil squatinas from the Jurassic and Cretaceous rocks.—On the development of the auriculo-ventricular valves of the heart, by A. C. Bernays.—On the segmentation of the ovum and formation of the blastoderm in Calyptræa, by A. Stecker.—On the primitive groove in the chick, by A. Rauber.—On the nasal cavities and nasal duct of Amphibia, by G. Born, seventy pages, three plates.

Revue des Sciences Naturelles, vol. v., No. 3, December, 1876.—Contributions to the natural history and anatomy of the Ephemeridæ, by N. and E. Joly, an important paper.—On parthenogenesis in *Bombyx mori*, by Carlo de Siebold.—On the histology of the egg, by A. Villot, dealing with theoretical views on the germinal vesicle and its history. There are also excellent reviews of recent French zoology, botany, and geology.

Zeitschrift für wissenschaftliche Zoologie, vol. xxvii., part 4, 1876.—On the anatomy of the Ophiuroid, *Ophiactis virens*, by H. Simroth, seventy pages, five plates.—On the structure of the brain in Arthropods, a memoir describing the brains of *Apis mellifica*, *Gryllus campestris*, *Gryllotalpa vulgaris*, *Carabus viol.*, and *Astacus fluviatilis*, by M. J. Dietl, of Innsbruck, thirty pages, three plates.—On the transformation of the Mexican Axolotl into Amblystoma, by Marie v. Chauvin.

Reale Istituto Lombardo di Scienze e Lettere, Rendiconti, vol. x. fasc. 1.—On Arabic money in the numismatic cabinet of Milan, by M. Ghiron.—On the coordinates of points and of lines in a plane, and of points and planes in space, by M. Casorati.—On two meteorological instruments invented by Angelo Bellani, by M. Cantoni.—On special cases of anencephaly, with observations on their etiology, by M. Sangalli.—On *Helminthosporium vitis* (Lev), a parasite of the leaves of the vine, by M. Pirotta.—On the phenomena which accompany the expansion of liquid drops, by M. Cintolesi.

Journal de Physique, February.—On a property of an electrified surface of water, and on the polarisation of the electrodes, by M. Lippmann.—On the phenomena of induction (concluded), by M. Mouton.—Comparative pitches of sounds given by various metals and alloys, by M. Decharme.—Experiments of M. Ch. Lootens, S.I.—The movements of the aërial column in sonorous tubes, by M. van Tricht, S.I.—The electric properties of sodium and potassium at different temperatures, by MM. Naccari and Bellati.