Thiselton-Dyer, Mr. Anstie, Q.C., Prof. Silvanus Thompson, Dr. Allcbin, Sir Philip Magnus, Dr. R. D. Roberts, and Principal Cave. A resolution was unanimously passed in the following terms—"That this meeting of graduates, while reserving its right to represent its views before the proposed Statutory Commission, hereby expresses its general approval of the report of the Royal Commission." A second resolution expressed regret that, for the second time, discussion in Convocation of the report of the Gresham Commission had been prevented. Further, that an account of the proceedings at this meeting of graduates be prepared by the secretaries, and at once be transmitted to the Senate and to the press. A committee of graduates has been formed under the chairmanship of Mr. H. H. Cozens-Hardy, Q.C., M.P., for the purpose of obtaining from the graduates at large an expression of opinion in support of the scheme of reconstruction proposed by the Gresham Commission.

SOCIETIES AND ACADEMIES.

PARIS.

Academy of Sciences, April 30.—M. Lœwy in the chair. —On the equilibrium of ocean waters, by M. Poincaré. A mathematical paper dealing with the theory of tides.—On the soil and climate of the island of Madagascar from an agricultural standpoint, by M. Grandidier. The author warns intending colonists of the comparative infertility of most of the soils in Madagascar, notwithstanding the apparently vigorous vegetable growth supported thereon, and points out the importance of meteorological conditions, which are peculiarly unfavourable in certain districts.—Digestion without digestive ferments, by M. A. Dastre. Fresh proteids (fibrin, albumin, &c.) undergo the same series of changes when subjected to the prolonged action of 10-15 per cent. solutions of ammonium or sodium chloride (or 1-2 per cent. sodium fluoride), as when acted on by gastric juice.—Observations of Gale's comet made at Nice and at Algiers, by M. Tisserand.—Elliptic elements of Denning's comet, 1894, by M. L. Schulhof.—Observations of the same comet made at Toulouse Observatory, by MM. E. Cosserat and F. Rossard.—A theorem concerning the areas described in the movement of a plane figure, by M. G. Kœnigs. If a finite arc AB of any curvature roll upon any arc of equal length successively on the two sides of this arc, the area swept by the radius IM joining the instantaneous centre to a point M on the arc AB is independent of the form of the arc AB.—On the lines of curvature of *surfaces cerclées*, by M. Lelieuvre.—On the analytical integrals of equations of the form

$$\frac{d^n z}{d y^n} = F(z), \; F(z) = \sum a_{ik} \frac{d^{i+k} z}{d x^i \, d y^k}, \; i + k < n,$$

by M. Delassus.—A note by M. Bendixon on a theorem by M. Poincaré.—On hysteresis and permanent deformations, by M. P. Duhem.—On a new method of determining critical temperatures by the *critical index*, by M. James Chappuis. The author employs the method of interference fringes for following the variation in the index of refraction of the substance examined. The critical temperature of carbon dioxide determined by this method is 31·40°, a number in substantial agreement with Amagat's determination 31·35°.—On a new method for the determination of the lowering of the freezing point of solutions, by M. A. Ponsot. The temperature is read at which a solution is in equilibrium with a quantity of ice with which it is thoroughly agitated, the exterior radiation being minimised, and the solution is then in part withdrawn and analysed.—On cupric bromide, by M. Paul Sabatier. The anhydrous salt and the form $CuBr_2, 4H_2O$ are described. The green crystals of the latter lose water over sulphuric acid and are converted into black $CuBr_2$.—On an unsaturated natural ketone, by MM. Ph. Barbier and L. Bouveault. This ketone is obtained from crude essence of lemon grass (*Andropogon citratus*). It has the composition $(CH_3)_2 : C : CH . CH_2 . CH_2$, CO, CH_3. It has a very agreeable but penetrating odour, and boils at 169-170° under ordinary pressure.—A purely mechanical action suffices for Cliona to bore its tunnels in the valves of oysters, by M. Letellier.—On the glandular system of ants, by M. Charles Janet.—Creation of new varieties by grafting, by M. Lucien Daniel. Hybridisation by grafting is possible for certain herbaceous plants which can be made to acquire new alimentary qualities by grafting them on plants superior to them in this respect, and afterwards

sowing seed from the graft. The influence on the graft varies, but is particularly marked among the Cruciferæ.— On the chemical composition of wavellites and turquoises, by M. Adolphe Carnot.—On the microstructure of *mélilite*, by M. L. Gentil.—New researches on association among bacteria. Augmentation of the virulence of certain microbes. Increase of receptivity: A note by M. V. Galtier in which the following conclusions are given :—(1) Microbes, attenuated till they cannot alone produce a mortal malady, become again virulent when two species are introduced into the organism. (2) The two species may multiply side by side, but generally one tends to disappear, and the other becomes again pathogenous. (3) When two species of microbes are found associated, it is sometimes one and sometimes the other which regains its virulence according to the conditions. (4) Association of bacteria is able to be employed in the laboratory to render attenuated microbes again virulent. (5) Not only can the return of certain epidemics be explained by it, but the effects of vaccination with mild virus may be aggravated by this means. (6) The passage of one microbe, conferring immunity against a given malady, may predispose to the attack of another.—Properties of serum from animals protected against the poisons of different species of serpents, by M. A. Calmette.

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

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