

in which their geographical distribution, their division into stems, their history, and their present institutions and general conditions are discussed. In the same volume we find a most valuable list of 597 trigonometrically-determined spots in Transcaucasia and the Terek province, with their latitudes, longitudes and altitudes, indexed according to latitudes and alphabetically; four very good geographical, economical and statistical descriptions of the provinces of Stavropol, Terek and Zakataly, with a map of the province of Stavropol giving the distribution of landed property; an interesting paper on the forests, the forestry, and the inhabitants of the woodlands of Ichkeria, in Daghestan; and a list of the Alpine plants (270 species) of Central Caucasus, by Prof. Akinfiëff—the result of seven years' work. In an appendix we find two long papers, one, by N. Dinnik, containing a graphic account of his Caucasian journey—this time to the head waters of the Urushten and Byelaya rivers (with a large-scale map, 3½ miles to the inch); and another, on the common law of the Svanes, their habits and customs, written by such an excellent authority on this subject as Prince Raphael Eristoff.—The twentieth volume of the same periodical, just received, contains an admirable map of all Caucasia and Transcaucasia, with very carefully drawn mountains, on the scale of 27 miles to the inch. It accompanies the first instalment of a work, "Transcaucasia," in which Colonel Lisovskiy gives a general physico-geographical description of Transcaucasia—its physical features, its geology, its vegetation, and its animal world.

SOCIETIES AND ACADEMIES.

PARIS.

Academy of Sciences, September 19.—M. Wolf in the chair.—On the clinical value of the agglutination of Koch's bacillus by human blood serum, by MM. S. Arloing and Paul Courmont. The results of over one hundred cases show that the aggregation of the tubercle bacilli when the blood serum is introduced into a culture may furnish, very rapidly, an important element of information in the early diagnosis of true tuberculosis. There were, however, two remarkable cases where the test failed, though tuberculosis was undoubted and in an advanced stage. The fact that positive results were almost always obtained when the tuberculous lesions were in an early stage renders the serum reaction the more valuable. Feeble aggregation was induced in some cases where tuberculosis was not found by the ordinary clinical methods, and the inference is drawn that latent tuberculosis may be consistent with the appearance of perfect health. One of the latter cases afterwards developed into tubercular laryngitis.—Observations and elements of the Perrine-Chofardet comet by M. G. Fayet.—Observations on the Perrine-Chofardet comet, made with the large equatorial at the Observatory of Bordeaux, by MM. L. Picart and Courty.—Synopsis of the solar observations made at the Royal Observatory of the Roman College during the first quarter of 1898, by M. P. Tacchini.—On the colorations of the less fusible porcelain enamels, by MM. A. Le Charpentier and P. Charpy. A list of the colours obtainable from various metals, all of which have been tested upon the manufacturing scale. The compositions are given of erbium and neodymium blues, erbium and neodymium greens, neodymium violet and erbium red.—Influence of gravity and light upon the dorsalventral organisation of the branches in inflorescences, by M. H. Ricome.—On the balloon ascents of June 8, 1898, on the occasion of the fourth international experiment, by MM. Hermite and Besançon.

GÖTTINGEN.

Royal Society of Sciences.—The *Nachrichten* (Mathematico-physical Section), part 2 for 1898, contains the following memoirs communicated to the Society:—
April 30.—W. Voigt: Thermo-dynamical contributions on the interrelations of galvanism and heat.
May 14.—E. Riecke: Second memoir on the theory of galvanism and heat. W. Voigt: On the magnitude of the stresses and strains involved in the production of shearing in Iceland spar. E. Marx: The dispersion of the electrical spectrum of water. P. Stäckel: On transformations of motions.
June 11.—W. Voigt: Is the pyroelectricity of crystals entirely referable to piezoelectric action?
June 25.—E. Riecke: The reactive pressure of kathode rays. J. Orth: Fifth report on the work of the Göttingen Pathological Institute.

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS.—Nine Years at the Gold Coast: Rev. D. Kemp (Macmillan).—Stories of Starland: Mary Proctor (Bacon).—The Discharge of Electricity through Gases: Prof. J. J. Thomson (Constable).—Canalisations Électriques: R. V. Picou (Paris, Gauthier-Villars).—Organographie der Pflanzen, &c.: Prof. K. Goebel, Zweiter Teil, 1 Heft (Jena, Fischer).—Fourteenth Report of the U.S. C.S. Commission (Washington).—Second Stage Mathematics: edited by W. Briggs (Clive).
PAMPHLETS.—A Determination of the Ratio of the Specific Heats at Constant Pressure and at Constant Volume for Air, Oxygen, Carbon-Dioxide, and Hydrogen: O. Lummer and E. Pringsheim (Washington).—Meteorology in Mysore for 1897: J. Cook (Bangalore).—Cape of Good Hope: Report of the Meteorological Commission for the Year 1897 (Cape Town).—Contributions to the Morphology of Lepidoptera: Dr. K. Jordan.—An Examination of the Classificatory and some other Results of Eimer's Researches on Eastern Papilios: Dr. K. Jordan.—Zweckmäßigkeit und Anpassung: Prof. J. W. Spengel (Jena, Fischer).—Clinical Observations on 2000 Obstetric Cases: Dr. G. P. Mathew (Simpkin).
SERIALS.—L'Anthropologie, Tome ix. No. 4 (Paris, Masson).—Zoologist, September (West).—American Naturalist, August (Ginn).—Boletim do Museu Paraense, Vol. 2, No. 3 (Pará).—Memoirs and Proceedings of the Manchester Literary and Philosophical Society, 1897-98, Vol. 42, Part 4 (Manchester).—History of Mankind, F. Ratzel, translated, Part 29 (Macmillan).—Zeitschrift für Physikalische Chemie, xvii. Bd. 1 Heft (Leipzig, Engelmann).—Archives of the Roentgen Ray, August (Rebman).—Botanische Jahrbücher, Funfundzwanzigster Band, 4 Heft (Leipzig, Engelmann).—Jahrbücher der Central-Anstalt für Meteorologie und Erdmagnetismus, 1894, 2 Vols., 1895, 1896, 1897 (Wien).—Bulletin de l'Académie Royale des Sciences, &c., de Belgique, 1893 (Bruxelles).—Anuario p.p. Observatorio do Rio de Janeiro, 1898 (Rio de Janeiro).—Proceedings of the American Philosophical Society, July (Philadelphia).—Economic Journal, September (Macmillan).—Records of the Botanical Survey of India, Vol. 1, No. 2 (Calcutta).

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