Elements of Applied Microscopy. By Charles-Edward Amory Winslow. Pp. xii+183. (New York: John Wiley and Sons; London: Chapman and Hall, Ltd., 1905.) Price 6*s.* 6*d.* net.

THIS little book is planned on novel lines, and contains a good deal of information in a small compass. As it is primarily intended for class use, practical details are briefly dealt with, and more space is thus available for descriptions of the various objects which the microscopist is intended to study. The first three chapters deal with the theory, construction, and manipulation of the microscope, and the preparation and mounting of objects. Next, micrometry and the camera lucida are described, and the subsequent chapters are devoted to the microscopy of starches, of foods and drugs and their adulterants, the examination of textile fibres and of paper, forensic microscopy, microchemistry, and petrography and metallography. Sufficient information is given to stimulate the student's powers of observation and desire for further knowledge. The chapter on the microscopy of paper is a particularly good one. Altogether the book should usefully fulfil the object for which it has been written.

Auslese aus meiner Unterrichts- und Vorlesungspraxis. By Dr. H. Schubert. Zweiter Band. Pp. 218. (Leipzig: Göschen, 1905.) Price 4 marks.

THIS is a very entertaining instalment of Prof. Schubert's lectures. The first section deals with triangles having rational sides and areas, pyramids with rational edges and volumes, and similar subjects. Tables and formulæ are given which will be useful to those who wish to set neat numerical exercises in trigonometry and mensuration. Section ii. is devoted to continued fractions, the Pellian equation, expression of an integer (when possible) as the sum of two squares, and so on. Section iii. is on the elementary calculation of logarithms, and forms a supplement to a similar chapter in the first volume.

LETTERS TO THE EDITOR.

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Secondary Rontgen Rays and Atomic Weight.

IN papers on secondary Röntgen radiation and polarised Röntgen radiation I have shown that all the phenomena of secondary radiation (as indicated by an electroscope placed several centimetres from the radiator) may, from substances of low atomic weight, be accounted for by considering the corpuscles or electrons constituting the atoms, to be accelerated in the direction of electric displacement in each primary Röntgen pulse as it passes through such substances, and that the interaction between the corpuscles affects only to a small extent the character of the secondary radiation proceeding from the substance. In light atoms there is almost complete independence of motion of the corpuscles within the limits of disturbance produced by all primary beams experimented upon.

It was also shown (NATURE, March 9, 1905) that this independence of motion disappears in heavier atoms in which there may be conceived to be a more intimate relation between the corpuscles, inter-corpuscular forces being brought into play which have the effect of widening the secondary pulses and producing accelerations in the corpuscles in directions other than those of electric displacement in the primary pulse. Until recently I have been unable to make experiments on a sufficient number of elements of higher atomic weight to arrive at any law connecting the penetrating power of the secondary radiation with the atomic weight of the radiator. Recent investigation has, however, shown that beyond the region of atomic weights in which the character of secondary radiation is almost independent of the nature of the radiator, the absorbability of the radiation is a periodic function of the atomic weight, the periodicity agreeing so far as these experiments have gone with the periodicity in chemical properties.

A detailed account of these results will be published shortly.

They, however, afford striking evidence of a connection between chemical properties and distribution of corpuscles in the atom, such as Prof. J. J. Thomson suggests in his conception of the constitution of the atom; for the character of the secondary radiation set up by a given primary can only, according to the theory which has been shown to account for all the phenomena I have hitherto observed, be affected by the relation between the radiating corpuscle and its neighbours.

The results also suggest a method of determining atomic weights by interpolation, for a small variation in atomic weight is usually accompanied by a very considerable change in absorbability of the secondary radiation, and though in these experiments great accuracy has not been essential, it appears that in many regions a variation of atomic weight by much less than 1 would be indicated.

The experiments are being continued.

CHARLES G. BARKLA.

University of Liverpool, February 9.

The Falkland Island Fox.

IN a review in the current number of NATURE of Mr. Renshaw's "Some Mammalian Types," reference is made to the "Antarctic wolf of the Falkland Islands exterminated by the sheep farmers in self defence." Might I be permitted to add a word on this subject in correction of an erroneous impression current among many naturalists with regard to this animal? During a visit to the Falkland Islands in 1903, and again in 1904, I made careful inquiries with regard to the native wolf or fox. The oldest sheep farmers in the islands, men who remembered when the fox was still plentiful, insisted that it was quite a mistake to credit it with attacking sheep; this never occurred, and the reason that the farmers waged war against the foxes was because the sheep, apparently mistaking them for dogs, especially at night, in their terror ran into the bogs and swamps which abound in the islands and were consequently lost. None of the farmers whose experience went back to the time of these foxes had any memory of sheep being killed or even mauled by them. In making this correction, I must say that I have not seen Mr. Renshaw's book, and consequently do not know what reason he attributes for the extermination of the fox.

R. N. RUDMOSE-BROWN.

Scottish National Antarctic Expedition, Edinburgh, February 10.

Chinese Names of Colours.

ON the interesting observation on Chinese names of colours of Mr. H. Crook, in NATURE (January 11), I would add this little information. Prof. Giles in his great dictionary gives (No. 4845) 雪青 as "a very light violet colour"; Wells Williams (p. 820) as "a purple colour." Mr. de Zelinski and Clémence Royer, in an interesting note "Sur les noms des couleurs en japonais" ("Congrès internat. des Orientalistes, Compte rendu de la 1ère session, Paris, 1873, vol. i., pp. 83–87), give another example, in Japanese, of the same kind.

浅黄 (*asagi*), literally "*a light yellow*," signifies, following Prof. de Rosny, "*bleu de ciel*"! Mr. Hepburn, in his Japanese dictionary, fifth edition, Tokyo, 1894, renders the same expression by "*a light green or pale colour.*"

Analogous oddities can also be found in European languages, as the French "*azur cendré*," or "*une rose* (the flower) *jaune*," &c.

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