groups the felspars, the felspathoids, the micas, the garnets, the epidotes, the tourmalines, the zeolites, and the chlorites. Among the metasilicates we find the pyroxenes and amphiboles, with serpentine beryl and the copper silicates. The table of classification given at the end of the work includes most of the common rock-forming minerals, but does not deal with the rarer species. The author finds himself unable to accept Prof. E. Dana's nomenclature of the silicates, and, as will be seen from the foregoing summary, uses the terms orthosilicates and metasilicates for groups having very different limits to those assigned to them by the American mineralogist.

The Blood; how to examine and diagnose its Diseases. By Alfred C. Coles, M.D. Pp. xi + 260. Plates vi. (London: J. and A. Churchill, 1898.)

THE book before us is practically confined to the consideration of morphological methods. The author has endeavoured to collect what is known concerning the morphological changes as determined by staining re-agents in the cellular elements of the blood in different diseases. He has further included a description of the methods requisite for the identification of certain parasites, and Widal's method of serum diagnosis in typhoid fever. The information contained in the book is, so far as concerns method, accurate; and those who prefer to have the methods for the examination of the blood in one volume, not under the head of the respective disease, as is done in the larger text-books of medicine, will no doubt find Dr. Coles' work useful. Some of the author's explanations and definitions are, however, not as exact as they should be; for instance, his remarks on chemiotaxis on p. 86, especially on negative chemiotaxis, are certainly original. The terms are not ordinarily used in the sense of the author. More might also have been done in the direction of a fuller bibliography.

F. W. T.

Notes on Volumetric Analysis. By Arthur Thornton, M.A., and Marchant Pearson, B.A. Pp. viii + 80. (London: Longmans, Green, and Co, 1898.)

THE series of twenty-seven experiments described in this book will serve as an elementary course of practical work in volumetric analysis, as they illustrate all the simple processes of neutralisation, oxidation, iodometry, and methods of precipitation. The instructions are clear; and the student who follows them should have no difficulty in performing the experiments, or in carrying out other exercises of the same type, while at the same time he should become skilful in general volumetric work.

A First Year's Course of Practical Physics, adapted for Beginners and Junior Students. By J. F. Tristram, M.A., B.Sc. Pp. 50. (London: Rivingtons, 1898.)

A SERIES of very elementary exercises on measurements of length, area, volume and density are given in this little book. Neither the plan of the book, nor the experiments described, present any novelties; but this will not prevent the volume from being of use in instructing young pupils in the methods of weighing and measuring.

The Doctrine of Energy: a Theory of Reality. By B. L. L. Pp. ix + 108. (London: Kegan Paul, Trench, Trübner, and Co., Ltd., 1898.)

THE argument that the conception of energy embraces and supersedes the conception of matter; that, in fact, the universe is not made up of two real things—matter and energy—but only one, was supported by the author from the standpoint of physical science in a volume published eleven years ago. The question is now presented as viewed from a metaphysical standpoint, and it will doubtless prove as interesting to students of philosophy as it is to students of physics.

LETTERS TO THE EDITOR

[*The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of* NATURE. *No notice is taken of anonymous communications.*]

Solfatara Gases.

WE have for a considerable time been occupied with an extensive study of the gases emanating from the earth in various parts of Italy with the object of detecting the presence of argon and helium, and possibly of other elements they may contain.

The first part of this work has already been published (*Gas delle terme di Abano, Gazzetta Chimica Italiana*).

We are now completing the study of the gases of the Solfatara di Pozzuoli, Grotta del Cane, Grotta ammoniacale, and of Vesuvius. In the spectrum of those of the Solfatara di Pozzuoli, which contain argon, we have found a sufficiently bright line with the wave-length 531·5, corresponding to that of corona 1474 K, attributed to coronium, an element not yet discovered, and which should be lighter than hydrogen. This line has never before been observed in earthy products. Besides we have noted the following lines:—653·5, 595·5, 536·2. In the spectrum of the gases gathered from the Fumarole of Vesuvius we have observed the lines:—769·5, 631·8, 572·5, 636·5, 441·5, and again 595·5. All these lines do not belong to the spectrum of argon or helium; they show a coincidence or proximity only with some unimportant lines of various elements, such as iron, potassium, titanium. Considering the conditions of our experiments, the presence of these elements in the gases we have studied is not probable. The line 572·5 is near to one of nitrogen, but being the only visible line of the spectrum of this gas, it cannot be attributed to it. Besides coronium we have thus probably other new elements in these gases.

We are diligently pursuing their investigation.

Padua. R. NASINI,
F. ANDERLINI,
R. SALVADORI.

The Spectrum of Metargon.

THE letter which Messrs. Ramsay, Travers and Baly have addressed you on this subject calls for one or two remarks. The similarity between the carbon and metargon spectra does not only apply to the green band, but to the whole of the visible spectrum, and also, as my previous letter pointed out, to the ultra-violet band commonly ascribed to cyanogen. With the ordinary coil discharge I could see nothing but carbon bands, and it is contrary to all experience that two dissimilar bodies should give complicated spectra so much alike that a two-prism spectroscope can detect no difference between them. With the Leyden jar a strong continuous spectrum appeared, and, overlapping it, some of the lines of argon. The blue argon lines were absent, but my examination was not sufficiently detailed to allow me to say, that the visible lines were those commonly found in the "red spectrum." Neither with nor without the jar did I see any line which could not be assigned either to carbon or to argon, but I should have liked to try a stronger jar and a more powerful coil. With the jar there seemed to me to be signs of decomposition of the gas, as, on removing it again, the carbon lines were weak at first and only gradually returned. The pressure in the tube was rather high; and if the tubes experimented upon by Prof. Ramsay and his coadjutors were all at the same pressure, I should not attach much weight to their observation that the carbon oxide spectrum did not make its appearance after introduction of oxygen, for that spectrum only shows well at lower pressures.

I ask for nothing more than a "suspension of judgment" until a more detailed spectroscopic examination has been made. Only such an examination should include observations at atmospheric pressures, and also at lower pressures than those used so far.

It is also highly desirable to try Leyden jar sparks of much greater intensity than those I saw used at University College. I agree with Prof. Ramsay in so far that the brilliancy and whole appearance of the carbon spectrum does not suggest its being due to an impurity. Taking the spectroscopic evidence by itself, it points in the direction that the gas under examination is a compound of carbon either with argon or with a so far unknown body, and that it may be mixed with a considerable quantity of