

difference in the point of view that has made our report (as reprinted, not 'abstracted,' in SCIENCE), so unintelligible to Dr. Dall. Another argument for due recognition of the publishing society may be found in such facts as this: A scientific library recently purchased three separate papers, which had been advertised as independent publications and enquired for by readers; all these have since arrived in the regular manner in the report of a society, and the library has as good as thrown away seven shillings through no fault of the librarian. The constant recurrence of this kind of thing renders the authorities very chary of purchasing separately-issued pamphlets, and the workers, few of whom can afford to buy for themselves, have to suffer. Surely any proposal to remedy this should meet with support.

F. A. BATHER.

BRITISH MUSEUM (NAT. HIST.),  
January 10, 1899.

#### NOTES ON INORGANIC CHEMISTRY.

A PAPER was read by Dr. Morris W. Travers before the Royal Society, November 24th, on the origin of the gases evolved in heating mineral substances, meteorites, etc. According to the theory of Professor Tilden these gases are enclosed in minute cavities at high pressure. It is known that some minerals, as quartz, contain liquid hydro-carbons and carbon dioxid, enclosed in cavities, but from a series of exhaustive experiments Dr. Travers concludes that this cannot be the case with the more permanent gases, such as hydrogen, carbon monoxid, nitrogen, helium and argon. He proposes the theory that in the majority of cases where a mineral substance evolves gas under the influence of heat the gas is the product of the decomposition or interaction of its *non-gaseous* constituents at the moment of the experiment. In cleveite and other minerals which contain helium only about one-half this gas is evolved by heat, and hence it would seem that it exists in the form of a compound which is only partially decomposable by heat.

In a series of analyses of atmospheric air from different sources Armand Gautier, in the *Comptes Rendus*, finds that combustible gases con-

taining carbon are present to a variable degree; on high mountains and over the ocean only traces are found, but a decided quantity in the air of cities. More remarkable, and contrary to previous observers, Gautier finds hydrogen as a constant constituent. The amount he gives is 1.5 volumes in 10,000, or half as great as that of carbon dioxid. Fuller particulars are promised in a later article, which will be looked forward to with no little interest.

THE confusion which attends the use of the sign % for both per cent. of weight and per cent. of volume is patent to all chemists as well as others. At the Congress of Applied Chemistry at Vienna it was proposed by Otto Bleier to confine the use of the sign % to per cent. by weight and to use  $\frac{0}{v}$  for volume per cent. This was opposed in the discussion by Weinstein. In a recent *Chemiker-Zeitung* Bleier makes a number of proposals, some one of which he hopes will so commend itself to chemists that uniformity may be secured. The proposals, in addition to his original one, are as follows: a.  $\frac{0}{g}$  or  $\frac{0}{p}$  (or  $\frac{1}{g}$  or  $\frac{1}{p}$ ) for weight per cent., and  $\frac{0}{v}$  (or  $\frac{1}{v}$ ) for volume per cent.; b.  $\frac{g}{10}$  or  $\frac{p}{10}$  (or  $\frac{g}{1}$  or  $\frac{p}{10}$ ) for weight percent., and  $\frac{v}{10}$  (or  $\frac{v}{1}$ ) for volume per cent.; c.  $\frac{g}{g}$  or  $\frac{p}{p}$  for weight per cent., and  $\frac{v}{v}$  for volume per cent.; d. % for weight per cent., and  $\frac{1}{v}$  for volume per cent., or *vice versa*; e.  $\frac{0}{g}$  or  $\frac{0}{p}$  for weight per cent., and % for volume per cent. Since the sign % is used so much more frequently to indicate per cent. by weight, it would seem that Bleier's original proposal, which is to confine the use of % to weight and to adopt  $\frac{0}{v}$  for volume, would be most simple and would speedily reduce the present confusion to a minimum.

THE bacteriological test for the presence of arsenic proposed by Gosio has been further investigated by F. Abba and the results published in the November number of the *Centralblatt für Bakteriologie und Parasitenkunde*. The method consists in growing *Penicillium brevicaulis* close to the substance to be examined for arsenic. arsenic is present a strong garlic odor is developed. The method was found to be successful in testing a series of over a hundred dried hides. As regards its delicacy it was found far superior to Marsh's test, as was shown in one

case when a piece of hide one centimeter square gave a distinct test by the bacteriological test, while five times the quantity failed to respond to Marsh's test. It would be interesting to compare this test with that of Reinsch, which has been found by me decidedly sharper and more to be depended on than that of Marsh.

J. L. H.

#### ZOOLOGICAL NOTES.

DR. CARLOS BERG notes several occurrences of the Antarctic seal, *Lobodon carcinophaga*, well to the northward of its usual habitat, one example having been taken in the La Plata, near Puerto de Ensenada, and another to the northward of Buenos Ayres in lat.  $34^{\circ} 28' S$ . This latter was a male captured in June, 1898, and must, from its size, 2.65 meters long, have been an adult animal.

THE *Zoological Record*, Vol. 34, containing a list of the zoological papers which appeared in 1897, has just been issued. Amid the rumors of the many good things that the working zoologist is soon to enjoy, it is a great satisfaction to continue to receive this valuable publication of the Zoological Society of London. Surely, 'A bird in the hand is worth two in the bush.'

#### CURRENT NOTES ON ANTHROPOLOGY.

##### ANOTHER MEXICAN CODEX.

FROM a personal letter I learn that Dr. Nicolas Leon, well known for his many contributions to Mexican archæology and history, has discovered a hitherto unknown Mexican Codex in hieroglyphic characters, of which he will soon publish a photo-lithographic reproduction. It dates from the year 1545, and relates to the tributes paid by the town of Tepeai. The proper names of places are written in the usual rebus, or 'ikonomatic' method. They present combinations not found in any of the other known documents of the kind, and some of them are quite puzzling. This discovery will make a welcome addition to the comparatively few specimens of the Mexican graphic method at that date.

##### THE PROGRESSIVE WOMAN.

A LITTLE book, 'Le Feminisme,' published lately in Paris (Colin et Cie, 1898), has some in-

terest to the student of sociology. Its author, Mlle. Kaethe Schirmacher, gives an accurate sketch of the advance of womankind in social position throughout the world of civilization, beginning with the United States and passing to France, Great Britain, Sweden and Russia. Of our own country she says in her preface that she speaks from personal knowledge. We are gratified, therefore, to know that the characteristics of American women are courage (*hardiesse*), the spirit of initiative and capacity for organization. In France 'feminism' has been principally cultivated by the men, not the women; in Sweden very few women are interested in it, though the King favors it; in England it is opposed by the learned institutions, while in Russia they all favor it. On the whole, the outlook for full and equal rights and opportunities for her sex the author considers cheering.

##### THE SEAT OF THE SOUL.

UNDERSTANDING by 'soul' the highest intellectual faculties, it is worth considerable trouble to find out where these functions are located. Savages believe that it is in the liver or the heart; cynics suggest that it is in the stomach; phrenologists place them in the front part of the brain; but the most advanced physiologists are now inclined to teach that the posterior cerebral lobes have the highest intellectual value. Dr. C. Clapham's arguments to this effect are quoted with approval in the *Centralblatt für Anthropologie* (1898, Heft 4). These arguments are that man has the most highly developed posterior lobes, and this is conspicuous in men of marked ability and in the highest races. In idiots the lobes are imperfectly developed, and in chronic dementia these portions of the brain reveal frequent lesions. Numerous authorities are quoted in support of these and allied statements.

D. G. BRINTON.

UNIVERSITY OF PENNSYLVANIA.

#### COLLECTIONS OF THE PROVINCIAL MUSEUM OF VICTORIA, BRITISH COLUMBIA.

A PRELIMINARY Catalogue of the Collections of Natural History and Ethnology in the Provincial Museum, Victoria, British Columbia, 196