

a "fawn" is, or what colour it is, and is thinking of a Greek faun. True, if we are to believe the sculptors, the fauns and hamadryads did live naked in the open air most of the time, so were probably slightly tanned. And what does Mr. Pier mean by "hackling" (p. 10)? Was a "hackling implement" the sort of flint you threw at a prehistoric election candidate: to "heckle" him? Or does Mr. Pier mean simply "hacking"? One talks of a dog "putting up his hackles." We pass on, unconvinced. On p. 11 we read a description of a vase as "handled for suspension or portage." By *portage* Mr. Pier probably means "carrying": his word is an odd one, and sounds as if it were of Canadian origin; we have not met with it in this particular sense before, and we do not like it at all.

Real misprints are rare. We notice "Chelleen" for "Chelléen" (p. 6), and one or two others of no importance.

The disadvantages of the book are such as the author can easily remedy in the succeeding parts, and we hope that he will continue his plan to its end. Such catalogues of private collections are extremely valuable to the student, and those collectors who publish them are to be congratulated on the scientific spirit that impels them to make their antiquities known.

H. H.

#### OUR BOOK SHELF.

*Heat Shadows.* By Walter Jamieson. Pp. viii+30. (London: Blackie and Son, Ltd., 1907.) Price 6d. net.

THIS pamphlet describes some new experiments in conduction and radiation of heat. The author has prepared a series of grades of paper sensitised to heat by impregnating them with a "sympathetic ink" which turns green on heating (*i.e.* on drying). The tint attained in any experiment may be considered as depending roughly upon the amount of heat absorbed; thus the paper acts as a calorimeter rather than as a thermometer. This law would be true if the absorbed heat were all transformed into the latent heat of steam; since, however, the paper sensibly warms (and, therefore, radiates), the law is not so exact; though even so there is a time-temperature compensation. The double iodides sometimes employed for the purpose are thermoscopes rather than calorimeters, for their transition points are somewhat too high, and when reached the transformation is rapid and automatic; that is, it is independent of the heat supply.

Specimens of the sensitive paper were received along with the pamphlet, and we have been able to test it. We think that it will prove very useful for demonstrating the phenomena of conductivity and radiation in schools where thermopiles are out of the question. Too much stress must not be laid, of course, upon quantitative experiments. The first experiment is to fasten a strip of the paper, sensitive side up, upon a board with a thick copper wire between. If the wire is heated at one end the green tint spreads out more widely near the heated end. We do not think that the teacher is justified in *measuring* the width of the coloured band and in thus trying to find the law of the decrease of temperature; he should be content with the inference of "more or less." Most of the experiments are excellent. We think those on radiation are the best.

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As a bright surface Mr. Jamieson employs a test tube coated with a metallic paint. This forms a very good coating, but the inquiring child (and teacher) may wonder whether the varnish with which it is applied has anything to say to the result.

This metallic coating is also employed by the author for coating electrical condensers, proof planes, &c., and is very readily applied both to the inside and outside of any jar

*Handbook of American Indians North of Mexico.* Edited by Frederick Webb Hodge. Pp. ix+972. In two parts. Part i. (Washington: Government Printing Office, 1907.)

THIS volume is Bulletin 30 of the Bureau of American Ethnology in connection with the Smithsonian Institution. The handbook contains a descriptive list of the stocks, confederacies, tribes, tribal divisions, and settlements north of Mexico, accompanied with the various names by which these have been known, together with brief biographies of Indians of note, sketches of their history, archæology, manners, arts, customs, and institutions, and the aboriginal words incorporated into the English language. All the tribes north of Mexico are dealt with, including the Eskimo and those tribes south of the boundary more or less affiliated with those in the United States. Under the tribal descriptions a short account of the ethnic relations of the tribe, its location at various periods, and statistics of population are included. There are many illustrations. Though confessedly incomplete, the handbook represents a vast amount of research by an army of observers, and students of ethnography will look forward to the publication of the second part with keen anticipation.

*A German Science Reader, with Notes and Vocabulary.* By Dr. W. H. Wait. Pp. vii+321. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd., 1907.) Price 4s. 6d.

THE greater part (180 pages) of this book consists of selections from standard German works on the chief departments of science. The extracts describe some fundamental facts and principles of chemistry, physics, geology, mineralogy, astronomy, and anatomy; and they have been selected from the point of view of interest as well as that of instruction. Helpful notes are given on each division of the book, and also lists of words commonly mispronounced and of words and phrases with special or idiomatic meanings. A vocabulary at the end of the book gives the English rendering of words used in the German text. Any student of science having a slight acquaintance with German grammar will find in the book all the assistance required to enable him to read the extracts with interest and profit. As an introduction to German scientific literature, the volume will be found of real service both by teachers and students.

*Les Bases de la Philosophie naturaliste.* By André Cresson. Pp. iv+179. (Paris: Félix Alcan, 1907.) Price 2.50 francs.

THE title of this little volume serves to define its purpose. The author provides a short and impartial explanation, likely to be understood by a reader of average intelligence, of the fundamental principles upon which modern philosophy rests. The scope of the book will be clear from the titles of the six chapters into which it is divided: the first deals with the old anthropocentric view of things, and this is followed by chapters on science and the inorganic world, science and life, science and mind, science and society, and conclusions.