

decorative shields of arms, they will do so, and will assure their willing dupes that the custom is right.

It is, of course, nothing but sham and delusion. Heraldry is a fact—a survival, or late form, rather, of what was once a vital principle. It cannot be renewed in a country which lacks the root of the custom, except by the authority of the Government. Coats-of-arms are exactly analogous to titles of nobility, and the man who assumes either is an impostor and a snob. When the Duke of Norfolk lands in New York, he will find a hundred Howards, more or less, all sporting the historic cross-crosslets on a bend, and very possibly also using the supporters of his ducal shield. A mild inquiry would fall to show any connection with any known member of the Duke's family, present or past, but the coat-of-arms would be flourished triumphantly. Now it is useless for Mr. Mathews or any other interested party to pretend that these several coats-of-arms are in the same class. The Duke has the arms, as he has his title, his castles and estates, by legal right and the sanction of Government. But in this free country he may find Howards who not only appropriate his coat-armor, but, if they wish, may also claim his titles. In this country there can be but one honest and respectable claim to any form or title of heraldic honors, and that is a compliance with the rules of nations where such honors are established and recognized.

Mr. Mathews professes to give the arms of five hundred colonial families. He offers no evidence to support a single one, and the greater part of the examples are mere assumptions. He might just as well have claimed five thousand, and probably the next writer will improve on him to that extent.

*Inorganic Evolution as Studied by Spectrum Analysis.* By Sir Norman Lockyer. Macmillan Co. 1900. 8vo, pp. 198.

Some thirty years ago Sir Norman Lockyer discovered that the spectrum derived from incandescent metallic vapors enclosing a sufficiently hotter core of the same vapors differed by additional and enhanced lines from that of the same vapors without the core; whereupon he incontinently espoused the hypothesis that this was due to a dissociation—whether depolymerization or decomposition—of substances in our list of chemical elements; and he has been occupied ever since in defending this hypothesis, one might almost say with every means that God and Nature have put into his hands; at any rate with arguments, good, bad, and indifferent, snatched from every side. He has, of course, been assailed with objections of like promiscuous quality; but we must declare that such of his arguments as were drawn from his own observations were, in so far, fashioned of sterling metal, which is more than can be said of his antagonists, on the whole. If Lockyer's hypothesis should ultimately be disproved, posterity will rate him as a man with a fixed idea; while if, as is more likely, it is ultimately confirmed, he will be extolled as one of the most sagacious of prophets, a confidant of Nature, more than a generation in advance of his times. One cannot imagine Lockyer as otherwise than ardent, vivacious, and brimming with new ideas and new observations. If the physiologists could only expedite their promised prolongation of human life in time to save him for another thirty years'

work, it would be an immense satisfaction to the scientific world and to him. We fear, however, that he intends this book to mark a slackening of his activities; and some rest he ought, certainly, to take, for this volume is ominously marked with signs of overwork. It reads as if it had been dictated to a typewriter, without calm preconsideration and without careful correction. Its faults of both kinds are so glaring that we shall simply dismiss them without further remark.

The original hypothesis of dissociation at length gave birth to another in Lockyer's mind, namely, that all the elements of our chemists are derived from one pristine matter, having an atomic weight some hundreds of times less than hydrogen, of which the recognized elements are polymers or compounds of polymers; and that the same matter exists everywhere throughout the stellar system in a few different grades of evolution—that is, of polymerization and combination of polymers—depending upon the temperature to which it is subjected. This is an acceptable working hypothesis, for it accords with our existing general conceptions of nature, and it is favored by a goodly squad of facts. This is Lockyer's Inorganic Evolution. That the relations among the chemical elements are to be explained by some sort of evolutionary process is the only idea we can at present entertain. We ought to begin, then, with trying how the hypothesis of the simplest kind of evolution that could answer the purpose will fit the facts, and adhere to that until it is refuted. Lockyer's seems to be that simplest hypothesis. At present, it is confirmed by but a few facts, over and above those required to suggest and give form to the theory. We cannot expect that it will stand unmodified by future discoveries; but how far or in what respects it will require alteration only time can show.

*A History of Eton College.* By Lionel Cust. [English Public Schools Series.] London: Duckworth & Co.; New York: Charles Scribner's Sons. 1899.

Mr. Cust has the good sense to feel that "some apology is due for the publication of this book." Sir H. C. Maxwell-Lyte, the Deputy Keeper of the Public Records, and Mr. J. W. Clark, Registrar of the University of Cambridge, have written scholarly histories of the foundation and its buildings; and the volumes which record the diversions and the prowess of Eton school-boys are already legion. Mr. Cust frankly confesses the reason for his book's existence: "The series of English Public Schools in course of publication by Messrs. Duckworth & Co. could hardly be complete without the inclusion of some account of Eton College; hence the present work."

Considering what Eton is and long has been—the most important of all the schools for the governing class of England—and considering how abundant is the material easily accessible, it would be hard to write an account of it which did not contain a good deal that was of interest. But the present performance is totally devoid of distinction; it shows neither breadth of view nor charm of style, while it is marked by very nearly every fault that the critics of the English Public-School System are on the watch to detect. It is an old observation that head-masters seldom write good English; this series of histories has gone far to prove that the under-masters suffer

from the same inability. That Mr. Cust is an Eton master we are not sure, but he certainly sprinkles his pages with infelicities. "In no school are the duties of parents to their children shown to such advantage or disadvantage as they are at Eton" (p. 230). The advisers of Edward VI. "were bigoted in their desire to enforce the Reformed Church upon the country" (p. 27). "Gray stereotyped, so to speak, his literary rank with his famous *Elegy*" (p. 109). These instances will be enough to illustrate what we mean. Snobbishness, again, is the besetting sin of the eulogist of Eton, and Mr. Cust has not succeeded in steering clear of it. He pursues the usual method of blowing a school's trumpet; he recites the names of the distinguished men who have gone forth from its walls. But what lists they are!—the epoch-making statesman and the insignificant place-holder jumbled up together with impartial hand. The page which begins with a Prime Minister will end with a Commissioner of Greenwich Hospital (p. 129). Even now, says Mr. Cust, in these days of civil-service competition, it is satisfactory to find that, "in a public office, no man is so likely to get on well as one who has been an Eton boy." We do not doubt for a moment that there are some excellent masters at Eton, or that Dr. Warre is an exemplary head; but Mr. Cust knows perfectly well that if Eton were blotted out of existence and the families which now send their sons to Eton had to send them to Clifton—a nightmare to make Mr. Cust shudder—no man would be so likely to get on well in a public office as one who had been a Clifton boy.

Like many of the other writers in the series, Mr. Cust speaks of Dr. Arnold with ill-veiled jealousy (pp. 196-7). But among Dr. Arnold's services to the Public Schools of England must be reckoned this—that he widened the range of their intellectual interests. Tutors at the universities still groan over the colossal ignorance of the average Public School man; but it is at any rate possible now for a sixth-form boy to know something of the history and literature of his own country as well as write good prose and verse in the languages of Greece and Rome. Yet this book not infrequently suggests that some improvement is still possible in this respect in the atmosphere of Eton. It might be asking too much to expect Mr. Cust to be acquainted with the way in which bishops were appointed in the later middle ages (p. 14). Even with Mr. Gardiner's history on the shelves, Mr. Cust may have some reason for speaking of the writings of "the ever-memorable John Hales" as "a plunge into schismatic controversy" (p. 84). But for such a statement as the following it is hard to find an excuse in these days of Anglo-American *entente*; and we will leave it without comment:

"At the Restoration . . . John Oxenbridge, on being ejected from his fellowship, resumed his missionary efforts in Surinam, Barbadoes, and other places, and eventually found his way to the new settlement at Boston, Massachusetts, of which he became the first pastor, thus forging a curious link between Eton and the New World" (p. 89).

*The Biography of a Grizzly*, and 75 Drawings. By Ernest Seton-Thompson. The Century Co. 1900. 8vo, 167 pp.

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