his classical reading, he will find more traces of it than those which he enumerates. Let him begin with the Greek novelists, and see whether Heliodorus's account of the loves of Theagenes and Chariclea will not come up to his standard.

But what are the conditions favourable to the growth of romantic love? Greece—by which Mr. Finck chiefly means Athens—was cut off from such love by three causes: the degraded position of women, the absence of direct courtship, and the impossibility of exercising individual preference (i. 126). The second and the third seem to us to run together, but still we see here some of the points on which romantic love depends; and to these may be added intellect (ii. 14), monogamy (i. 58), and a long courtship (i. 59). The old-fashioned plan which Goethe describes—

"In der heroischen Zeit, da Götter und Göttinnen liebten, Folgte Begierde dem Blick, folgte Genuss der Begier,"—

has left us many a charming picture, and none more charming than the Homeric hymn to Aphrodite; but such prompt satisfaction of love no doubt did not give to a romantic passion sufficient time to grow. The feeling was there, but rudimentary. Now, that rudimentary feeling has so grown as to have largely pushed out of sight its physical basis, and men and women act (or think they act) upon other and higher impulses. To this change the agencies enumerated by Mr. Finck have doubtless contributed, and he would apparently acknowledge, too, that the general alteration in the position of women has affected the way in which their lovers regard them. But we should lay more stress than he does on the influence of poets and novelists; they have gone on painting unreal feelings until they have made them real; what a few characters felt at first has been worked by this agreeable sermonizing into the nature of all the readers.

But, after all, the starting-point of romantic love is beauty. Where the women are secluded, beauty cannot be seen. Where matches are made by the parents, beauty does not count. But, where free selection is left to young people, beauty takes its proper place. It is a sign of health, and "love in its primitive form urges animals to prefer those that are most healthy." Mr. Finck therefore goes on next to describe the causes which bring out beauty: "a climate tempting to outdoor life; a considerable amount of intellectual culture and æsthetic refinement; a mixture of nationalities, fusing ethnic peculiarities into an harmonious whole; and love, which fuses individual complementary qualities into an harmonious ensemble of beautiful features, graceful figure, amiable disposition, and refined manners" (ii. 25); or, more shortly, health, crossing, love, and mental refinement (ii. 73). Thus love and beauty act and react on each other; in connection with which point Mr. Finck makes a suggestion of some importance when he says (ii. 94--95):-

"The artificial preservation of disease and deformity, in and out of hospitals, due to Christian charity, might in the long run prove injurious to the welfare of the human race, were it not for the stepping-in of modern love as a preserver of health and beauty. What formerly was left to the agency of natural selection, is now done by love, through sexual selection, on a vast scale."

It is even more difficult to persuade women than it is to persuade men to do what is good for them, and if the close connection thus pointed out between health and beauty will not induce women to take a little trouble to preserve or improve the former, we must give them up as hopeless. By insisting on this cardinal truth, Mr. Finck will do a useful work, though some day perhaps our descendants will wonder that it should have needed insisting. There is room enough for improvement in both health and beauty. Mr. Galton tells us that "our human civilized stock is far more weakly through congenital imperfection than that of any other species of animals"; while, as for beauty, it is likely that the world is but at the beginning of what sexual selection, unhampered and unthwarted by other agencies, can do for us. It is, Mr. Finck affirms, a moral duty for girls to defy parental tyranny "where money or rank are pitted against love. For the health and happiness of the next generation are at stake."

This is strong speaking; but still, if our author would always speak as seriously and soberly as this we should have but little quarrel with him. Unfortunately he has spoiled an interesting book, not only by a gossiping and confused arrangement of its matter, but also by an intolerably jaunty style, flavoured with Americanisms. A book which claims scientific value should not be disfigured by stupid jokes (as on Prior and priority), or by such phrases as "the female persuasion," "Schopenhauer's Will is an æsthetic sort of a chap," "a young animal that would risk its own life in defence of its mother or father is yet to be heard from."

F. T. RICHARDS.

OUR BOOK SHELF.

Earth-Knowledge: A Text-book of Elementary Physiography. By W. J. Harrison, F.G.S., and H. R. Wakefield. (London: Blackie and Son, 1887.)

This is a small text-book adapted to the somewhat remodelled syllabus of the Science and Art Department's elementary stage of physiography. There can be no doubt about the usefulness of the book, but it is to be regretted that more originality is not displayed in the treatment of the subjet of matter and energy. Of the rest of the book no complaint can be made: it is excellent. That which deals with matter and energy, however, is meagre and unequal, and the arrangement is at times unnatural. Gravitation, for instance, is discussed without any direct reference to weight, although two pages are devoted to the methods of determining specific gravities. Then, again, one would scarcely expect nowadays to read a chapter on energy without finding some mention of the doctrine of the conservation of energy.

We are afraid, also, that the chapter on voltaic electricity will be rather misleading to beginners, as no mention whatever is made of the existence of any kind of battery beyond that consisting of a single copper-zinc cell, whilst effects are described which could only be produced by the current from many such cells. The definition of a stress as the "mutual action at the surface of contact between two bodies, whereby each exerts a force upon the other," is also rather misleading, since it does not include the stresses of gravitation, electricity, and magnetism.

Of course too much cannot be expected of an elementary text-book, but it is quite time that the modern ideas regarding force, energy, and matter should be introduced into such books.

A. F.