

omniscience. We remember to have heard a criticism passed on a controversial work, made up of many short, somewhat disconnected chapters, to the effect that it reminded the reader of a dog in a kennel coming out at intervals to have a short sharp bark, and then quickly going in again. "The Universe," in a somewhat similar manner, reminds us of the dissolving-views at which the lecturer goes in and out at every view. It is, in fact, a pictorial entertainment, in which M. Pouchet takes the reader, agreeably and without exertion, through all time and all space, with remarks by the way. A picture is presented and the author tells us a little about it, playing all the while (so that the affair may not be tedious) a pretty accompaniment of eloquent diction, charming fancies, and pleasing sarcasm; then another picture is put before the readers, and again another entertainment is begun and finished in like fashion. In this way the author brings before his audience something about most things, treading with a light fantastic mind over the animal and vegetable kingdoms, the formation of the globe, fossils, volcanoes, glaciers, the sun, the stars and immensity, and many other things besides; and as dissolving-views generally end, or used to end, with a chromatrope, so M. Pouchet finishes with an amusing chapter on monsters and superstitions. To every topic there is a picture. We have reproduced two of the smallest and simplest; but a very large number of them are extremely beautiful full-page drawings. And if in them the naked truth is anywhere departed from, it is only for the purpose of heightening the entertainment.

Our readers will already have seen that we regard the letter-press as subsidiary to the pictures; and as far as we can judge, that seems to be also M. Pouchet's own view. The great fault we have to find with the writing, relates to the extreme elegance of the diction. In England we generally talk of bird's nests, but M. Pouchet dwells with zest on the Nuptial Arbour of the Bower Birds; and in the same spirit we have a good deal about "the Nuptials of Plants." In the next edition we shall probably hear something about the Hymeneals of Bathybius.

It is an old question which has puzzled many generations of mothers and nurses, "whether it is better to give a child his powder in jam until he discover the deception, or to be straightforward from the beginning and make the powder go down all nasty as it is." And we may take it for granted that to the general reader simple naked scientific truths are at first as unpalatable as medicine; so that with them too the question of what the old apothecaries used to call "a vehicle" has always to be considered. This question we do not pretend to decide, however strong our own private convictions may be; but to those who range themselves on the side of jam we may recommend this volume as a most skilfully prepared, and not unwholesome confection, with not too much medicine in it. The author states in his preface that he wrote it in the hope of exciting some love of science in his readers, and the researches which have made his name distinguished, are evidence that he has himself a real love of science to no small degree. We can readily imagine how a mind, especially a young mind, fascinated by these beautiful pictures and interested in the lightsome narrative, should let the things grow upon him until there sprang

up an actual fondness for plain scientific truth, and he came at last to think that "the medicine was food." To such, and towards such an end, we can heartily commend it.

#### OUR BOOK SHELF

*The Origin of the Seasons.* By Samuel Mossman. (Edinburgh: Blackwood & Sons. 1869.)

A PLEASANTLY written and interesting work, spoiled by being coupled with a preposterous theory. Mr. Mossman boldly attempts a difficult task. He proposes to solve a complex problem on very simple principles. Unfortunately his principles are unsound; and overlooking this, there remains the objection that they do not solve his problem. This problem is the well-known fact that in bygone ages plants existed in high latitudes—as far north as England, for example—whose analogues are now only found in the tropics. Mr. Mossman explains this very simply. The obliquity of the ecliptic is now slowly decreasing; therefore it must once have been increasing, and doubtless—though astronomy objects—there was at one time no obliquity: in those days perpetual spring reigned on the earth. But there began a series of upheavals, he says, "directed chiefly towards the northern hemisphere almost exclusively," and this hemisphere becoming overweighted, naturally began to incline. The inclination became at length perhaps twice as great as at present, or even more; but then the southern hemisphere began in its turn to be upheaved, and so checked the increase of inclination, and caused the present process of slow decrease. Mr. Mossman thinks there is nothing in this "contrary to the universal law of gravitation," an opinion which he would modify were he more familiar with that law. The want of balance he speaks of would affect precession and nutation, but not the inclination of the earth's axis. Supposing gravity were on his side, however, and we granted his extension of the tropics, he should remember that the Arctic regions would be equally extended. If he brings the northern tropic to the latitude of London, he has brought the Arctic circle to the latitude of Madrid. Tropical plants in the latitude of Paris, say, would fare ill under this arrangement.

*Recherches sur la Faune de Madagascar et de ses Dépendances.* 1<sup>re</sup> Partie: Relation de Voyage. Par Francois P. L. Pollen. (Leyde: Steenhoff, 1868.)

M. POLLEN, being fond of sport, and having a mind to travel, after consulting Professor Schlegel, started for Madagascar, and spent there a considerable time exploring that and the neighbouring islands, having M. C. Van Dam for companion and preparer of skins, &c. He now publishes the results of his expedition, in large quarto, with profuse illustration in the form of lithographic plates. There are to be five parts to this work—(1) The account of the expedition, (2) the mammifers and birds, (3) the reptiles, (4) the fish, (5) the insects, crustacea, and molluscs. M. Pollen writes the first himself, whilst Professors Schlegel, Bleeker, Vollenhoven, Herklots, and Selys Longchamps assist in the more strictly scientific portion. At present we have only M. Pollen's account of his voyage before us, which is written in a popular style—as he says in the preface—and is as interesting as could be expected. We should suppose that M. Pollen is not himself profoundly scientific; but he has good assistance for the rest of his work.

*Country Walks of a Naturalist with his Children.* By Rev. W. Houghton. (London: Groombridge and Sons, 1869.)

If the author had aimed at interesting children of a somewhat larger growth than he has had in view, we think he would have succeeded. The trivial parts of the book will hardly please boys and girls capable of understanding the more solid portions.