same subject "are so elaborate as to induce an idea in the student that this really simple aid to diagnosis and treatment is complex in its application, and exacts tedious practice before it can be employed fruitfully." There may or may not be truth in this, but we fear any man who may hold such an idea will not even trouble to peruse the small guide now before us. There is nothing new in it, except a proposed modification of Mackenzie's back movement lamp, which, however, appears to be little else than "a distinction without a difference."

Zoological Atlas, with Practical Directions and Explanatory Text, for the Use of Students. By D. M'ALPINE, F.C.S. (Invertebrata.) Edinburgh and London: W. & A. K. Johnston: 1881.

THE present work forms the second part of the *Zoological Atlas*, the review of the "Vertebrate" portion of which appeared in the July number of this Journal. The "Invertebrata" are now treated in some sixteen coloured plates. In reviewing the "Vertebrate" section of this Atlas we took occasion to remark the highly diagrammatic coloration of Mr M'Alpine's figures. That characteristic, which leads the junior student especially to expect to find practical work an easy instead of a difficult study, again comes prominently to the front in the second part of the Atlas. For example, it is difficult to conceive why the limpet or whelk (Plate XIV.) should not have been at least coloured from nature. No competent zoologist would have coloured a limpet's foot of a delicate pink hue, or have depicted a whelk's foot in the same æsthetic tint. In our opinion, the plain plates of Rolleston are worth scores of illustrations of the type seen in Mr M'Alpine's book; because the former show the structures of animal life as they really exist, whilst the plates in this Atlas, for the most part, convert into "diagrams" what purport to be actual dissections.

In the Invertebrate section of his book Mr M'Alpine has drawn his *materiel* pretty extensively from the illustrations contained in the zoological text-books of other writers. In proof of this statement we may select the following notable examples:—His illustration of Protomyxa (*aurantiaca*), Plate II., reproduces Haeckel's well-known figure of that protozoön; and it may be remarked in passing that Mr M'Alpine's *Protogenes*, *Vampyrella*, and *Myxastrum*, (Plate I.,) might be figures of one and the same animal, so far as their differences, as depicted in this Atlas, are concerned. The *Protamœba* (Plate I.) and the *Amœbæ* (Plate II.) give no adequate idea of the delicacy of these protoplasmic masses, and in Mr M'Alpine's drawings resemble lumps of dough more nearly than the Protozoa in question. In Plate III. we meet with old familiar friends in the *Gregarina* and *Gromia;* but the *Nummulite* is very unlike the reality. Plate IV. contains figures of Radiolarians

familiar years ago to readers of Dr Carpenter's works. *Sphærozoum* is, of course, Haeckel's, and Stein's *Acineta* is easily recognised. In Plate V. the star-fish is treated, but the nervous system of that animal (Fig. 8) is decidedly diagrammatic. There is nothing new or original about Plate VI., wherein the sea-urchin is depicted. Plate VII., dealing with flukes, gives us Steenstrup's figure of the redia-stage; *Cysticercus* and tape-worm structure which are repetitions of text-book illustrations; and lastly, various illustrations of leech-structure, compared with which Rolleston's single figure is a far more complete guide to a knowledge of these Annelides. In Plate VIII. the "water-fleas" are to the fore as of old. Of diagrams 1, and figures 4, 8, and 9, representing the Balanus and its development, we find *facsimiles* in Huxley's *Invertebrata*. It is notable that Mr M'Alpine usually makes no reference in his text to his obligations to any authorities. Here and there (*e.g.*, Fig. 7, Plate XIV.) we find the remark, "after Huxley"; and from the letterpress of Plate IV. we learn that Mr M'Alpine's figures in the first four plates have been "mostly adapted from standard works on the subject." But if Mr M'Alpine has copied a whelk section from Huxley, why does he not likewise acknowledge his very apparent indebtedness to that authority for the diagram of barnacle (Huxley's *Invertebrata*, page 294), and for his larval cirripedes, which are reproductions of the figures in Huxley (page 296)? If he acknowledges Huxley's "crabs" (Plate IX.), why does he not own Gegenbaur or Milne Edwards for the crab's nervous system (Plate IX.)? or why pass over without acknowledgment the source (Milne Edwards) of the figures of the generative organs of sepia (Plate XVI.)? It seems invidious to mention Gegenbaur as the original of the section of the cuttlefish eye (Plate XVI.), and to omit any mention of the great French zoologist just named.

In his illustrations of the cuttlefishes, Mr M'Alpine has had his Cephalopod (Plate XV.) represented head downwards. The author thus attempts, we presume, to teach the fact that in the comparison of a cuttlefish with, say, a snail, this is the proper method of delineation. But his practice has its disadvantages Nobody ever dissects a cuttlefish head downwards; and Mr M'Alpine is not at all explicit in his description regarding the reasons for the acrobatic posture of his Cephalopod; whilst he represents in the next plate the organs of cuttlefishes with the head end upwards (Figs. 5, 8, 10, and 11, Plate XVI.) We are unable to discover any special advantage which this Atlas will confer over a well-illustrated manual of zoology. In fact, a student, by investing a small moiety of his "funds" in a shilling box of paints, and by colouring the figures in his text-book, would produce a tolerably exact reproduction of this "Atlas." The "practical directions" are, in our opinion, too sparse to be serviceable, and the illustrations too diagrammatic to be useful. The student requires instructions for practical work as full as those of Huxley and Martin, and he requires

plates as true to nature as those of Rolleston. Mr M'Alpine's book will not, so far as we can discover, supply the great want of the day—an Atlas which, to zoologists, will represent the plates of Ellis in human anatomy. As it is, the Atlas under review is practically a reproduction of plates already in use in text-books of zoology—an opinion we have already expressed in reference to the "Vertebrate" section of this book, and which the examination of the "Invertebrate" section serves only to confirm.

The Opium Habit—A Clinical Lecture. By CHARLES W. EARLE, M.D., etc. Chicago: Chandler & Engelhard: 1880.

PROFESSOR EARLE, as Physician to the Washington Home for Inebriates, where a number of cases of opium eating have been treated, is able to speak from experience and with considerable authority. His lecture, which was delivered at the Women's Medical College and subsequently read before the West Chicago Medical Society, is carefully and dispassionately written, and has evidently been prepared with great care and after considerable trouble in ascertaining facts. From the various chemists in Chicago he got information as to the number, sex, age, occupation, etc., of their customers who purchased narcotics, and the kind and quantity used.

Some of the facts with which he furnishes us are as follows:—About three to one were females—age mostly from 30 to 40. Most belonged to the middle classes, and were married. Morphia was used most frequently; gum opium next. The quantity varied from a few grains of morphia to a drachm daily. One lady bought half a gallon of paregoric every week. (A large number of ladies, known to the druggists, were in the habit of consuming small quantities daily unknown to their friends.)

The effects of opium eating, as observed by Professer Earle, are physically (at first various but ultimately) a "sullen, haggard, and apathetic appearance, impaired appetite, poor digestion, constipated bowels, vesical and sexual torpor, and a sluggish condition of all the functions of the body." Morally the results are, "the man avoids society, . . . he neglects his family, . . . and sooner or later moral rectitude, every noble impulse, every generous thought, is swallowed up in the terrible fight to possess more and more of the narcotic, to obtain which, in almost every instance, the victim has become an inveterate prevaricator."

In regard to prognosis, Professor Earle seems to consider that the opium habit is not dangerous to life (he does not say whether it shortens life or not), that the narcotic may be taken away from the opium eater with perfect safety, but that relapses are very liable to occur because the patients "belong to that class who bear pain badly, and desire relief at any cost."