word for friend or foe. A braver, truer, gentler Englishman never stepped. He had just begun to make his mark in research, when his life withered and dropped at the very unfolding of its blossom. He has left desolate as happy a home as there was in this great city. But he has left behind him a good name, a few friends, and a wife proud of him in her grief. Requiescat in pace. W. L.

REVIEWS.

The Topographical Anatomy of the Child. By Johnson Symington, M.D., F.R.S.E., &c. Illustrated by 14 Coloured Plates and 33 Woodcuts. Edinburgh: E. & S. Livingstone. 1887.

"While the anatomy of the human subject, during the earlier months of intra-uterine life, has been investigated with great care and minuteness, and while our knowledge of the topographical anatomy of the adult has been enriched by the labours of numerous investigators, comparatively little attention has been paid to the peculiarities in the anatomy of the infant, and the changes that occur from the time of birth up to that of adult life." In these words Dr. Symington gives the reasons that have moved him to undertake and carry through the investigation of which this volume forms the very tangible result. Not only is it true that very little has been published on the subject, but it is also true that no inconsiderable part of that little was erroneous; and there is scarcely a page of this book but corrects some common error, or throws new light on anatomical relations as they occur in the child.

The mode of investigation pursued has been mainly that by sagittal, horizontal, and coronal frozen sections of the body made at different levels, but supplemented by other methods where fuller information was required. The work is divided into two sections, the first forming a running commentary on the plates, and the second a formal discussion of the points wherein differences are observable between the anatomy of the adult and that of the child.

Hitherto, anatomists have had no very clear ideas as to date of formation of the air cavities in the mastoid, frontal, and superior maxillary bones, in all of which, but more
especially the first, accurate knowledge as to their presence or absence at a given age might be of essential importance in a surgical aspect. Dr. Symington has brought much evidence to bear on the subject, and if he has not settled the question, has done much to elucidate it. He found that the antrum mastoideum (a cavity, as he remarks, generally overlooked by anatomists) was present at the time of birth in all the specimens examined by him, but he is of opinion that the pneumatic cavities generally are not formed in the lower part of the mastoid till about the time of puberty. This it will be seen is an important observation in connection with the question of trephining the mastoid for suppuration of the middle ear. The frontal sinuses he found in his specimens to be absent at 6 years of age and present at 9, so that we have thus pretty clearly indicated the date at which they commence to form. In regard to the antrum of Highmore, he notes that, as a rule, it opens into the infundibulum, and not, as is commonly stated, into the middle meatus, although sometimes a second opening is found leading directly into the latter.

On the much disputed point as to the position of the heart in children, he dissents from the view that in them the base of the heart is higher than in adults. He calls attention, however, to the greater relative size of the heart, and the narrowness of the front of the chest in children, and remarks that as a consequence the apex of the heart reaches to, or even beyond, the nipple line, and may be felt in the fourth intercostal space as well as the fifth.

We would note as especially worthy of careful perusal, the section on the position and growth of the larynx, that on the production of the lumbar curve of the vertebral column, and the elaborate account of Dr. Symington’s researches into the development of the jaws and teeth.

The numerous references at the bottom of each page testify to the painstaking care with which the author has studied the subject, as well as displaying a praiseworthy anxiety to give full credit to all fellow-workers in the same field.

We must not omit to express our high appreciation of the clearness, accuracy, and artistic finish of the coloured plates. The numerous reference lines crossing their surface do to some extent mar their beauty, but these lines greatly simplify the understanding of the plates, and render unnecessary the usual reference tables, and to obtain so desirable a result even greater sacrifices might have been excused.

There are remarkably few errors either in the plates or letterpress. We notice that in plate vi, fig. 2, the left pleural
cavity is called pericardial, and there are a few typographical errors in the text, but none of any consequence. We congratulate Dr. Symington on the successful termination of his important investigation.

On the Animal Alkaloids. By Sir Wm. Aitken, Knt., M.D., F.R.S. London: H. K. Lewis. 1887.

A Treatise on the Animal Alkaloids, or the Ptomaines and Leucomaines. By A. M. Brown, M.D. With an Introduction by Professor Armand Gautier. London: Baillière, Tindall & Cox. 1887.

We are much obliged to Sir Wm. Aitken for this brief and yet complete review of the interesting subject of the animal alkaloids, the ptomaines and leucomaines, of which we hear so much. For the sake of those of our readers who have not followed this controversy we may say that ptomaines are alkaloids evolved during the process of putrefactive decomposition from dead animal matter, while leucomaines are alkaloids evolved from the living animal tissues. These are quite analogous to the vegetable alkaloids, and indeed it appears that the latter are evolved from vegetable albumen as the animal alkaloids are produced from animal albumen.

The most important part of this work is devoted to the evolution of the alkaloids in the living body and the attempts which have been made to explain certain symptoms by the assertion that the alkaloids finding their way into the blood act as poisons. In this part of the subject, and indeed throughout, the works of Dr. Lauder Brunton are frequently referred to. The very suggestive observations by this author on the absorption of poisonous alkaloids from the intestinal canal in cases of digestive derangement are well worthy of careful consideration, and are calculated to stimulate observation and research.

We do not quite understand the objections which our author has to the "microbes" in connection with the animal alkaloids. Surely the micro-organisms of putrefaction have something to do with the evolution of the ptomaines, and it is not a violent assumption to suppose that, in the living body other micro-organisms may evolve alkaloids which will have a poisonous action on the system.

Dr. Brown's work has much more pretension than Sir Wm. Aitken's—it is entitled a treatise. The book is divided into three parts—I. Cadaveric Alkaloids or Ptomaines; II. Vital