

ration, during which there was no expression of acute suffering, allows nevertheless, that it may have been injured.

In conclusion, this volume must be allowed to contain some valuable surgical information, and is highly creditable to the originality and industry of Mr Clement. It shows that he not only observes the characters and progress of his cases, but that he reflects on them, and reflects to some purpose.

ART. VII.—1. *Lehrbuch der Pathologischen Anatomie des Menschen und der Thiere*. Von Dr ADOLPH WILHELM OTTO, Königlichen Medicinal Rath im Medicinal Collegium für Schlesien, ordentlichem Professor der Medicin un der Universität, und der Medicinisch-Chirurgischen Lehr Anstalt zu Breslau, u. s. v. Erster Band. Berlin, 1830. Pp. 472.

2. *A Compendium of Human and Comparative Pathological Anatomy*. By ADOLPH WILHELM OTTO, Royal Medical Councillor in the Medical College of Silesia, Ordinary Professor of Medicine in the University and Medico-Chirurgical Academy at Breslau. *Translated from the German with additional Notes and References*, by JOHN F. SOUTH, Lecturer on Anatomy at St Thomas's Hospital. London, 1831. Svo. Pp. 456.

DR ADOLPHUS WILLIAM OTTO, professor of medicine in the University and the Medico-Chirurgical Academy of Breslau, must not be confounded with Dr Charles Otto of Copenhagen,—the author of *Travels in Great Britain, France, and Switzerland*, noticed in this Journal some years ago.

Dr Adolphus William Otto, the author of the present work, is evidently a person of most extensive reading and intimate acquaintance with works on pathological anatomy—a science in which it is evident he takes great interest; and has given, in the present volume, the most complete view of the facts, doctrines, and literature of this science, yet extant. The author had previously drawn up a catalogue of the preparations contained in the Royal Anatomical Institute of Breslau; and it is not improbable that his familiarity with subjects of this nature may have contributed, with other causes, to direct his attention to the composition of the present work.

The treatise, of which only the first volume is before us, consists of two parts,—one of a general, the other of a more particular nature.

The first, or general part, is divided into eleven sections, in which the author treats of the following subjects. 1. Errors

of the animal organization in general; 2. Errors in the number of parts; 3. Errors in the size of parts; 4. Figure; 5. In position; 6. In relative connection; 7. In colour; 8. In consistence; 9. In continuity; 10. In texture; and 11. In contents. The consideration of these subjects occupies about one-fifth of the volume.

Of the second, or particular part, only the first book, which occupies the residue of the volume, and treats of the morbid changes occurring in the individual organs or organic systems, is published. This is divided into nine sections, which, however, are numbered in continuity with those of the first part from the commencement of the volume; and in these nine sections the morbid changes incident to the following systems and textures are considered. 1. The cellular or mucous tissue; 2. The cellular membranes, including serous membrane, mucous membrane, and skin; 3. The horny tissue, including cuticle, nails, and hoofs, hair and feathers; 4. The osseous system; 5. The cartilaginous system; 6. The fibrous system in general, and the joints in particular; 7. The muscular system; 8. The vascular system, including the pericardium and heart, the arteries and veins, and the lymphatic vessels and glands; and 9. The nervous system, including the brain, spinal chord, and nerves.

In conducting the details of these various subjects, Dr Otto shows that he understands well what is meant by pathological anatomy. After classifying and distinguishing each form of morbid change, he enumerates the principal anatomical and physical characters by which it may be distinguished from those with which it is liable to be confounded. The most essential details are given briefly in the text; and proofs, illustrations, explanations, and references are subjoined in the shape of notes, in a smaller character. In both of these divisions, the author displays accurate and extensive knowledge of the subject; and his work constitutes the most complete literary history of pathological anatomy that has yet appeared. In short, from every source he has endeavoured to collect whatever pertains to his subject, and to exhibit in a small compass the concentrated information of all the pathological physicians and surgeons who have flourished in Europe for two centuries.

Of a work so complete in method, and so full in details, it is important that the contents be made more generally accessible than could be done when in its original German. Mr South has on this account rendered a most useful service to the English student of pathology, in providing him with a good translation, and in further adding occasional notes and references. The work requires only to be known in order to be perused. If it does not in every instance give full accounts, it gives them in sufficient detail for the beginner, and will show the advanced student the



sources in which he can investigate his subject more fully and perfectly.

It gives us pleasure to see so many attempts to establish the facts and doctrines of pathological anatomy on a sure foundation, and to give it the air of a satisfactory science. Works like those of Dr Otto will induce physicians and surgeons to study the subject more attentively, and will doubtless diffuse its cultivation in a more accurate way than heretofore.

ART. VIII.—*Essay on the Natural History, Origin, Composition, and Medicinal Effects of Mineral and Thermal Springs*. By MEREDITH GAIRDNER, M. D. Edinburgh, 1832. 12mo, Pp. 420.

THE present essay is unquestionably one of the ablest and most instructive applications of physical and chemical science to medicine which we have for a long time had occasion to peruse. Though originally only founded on an inaugural dissertation, which was infinitely above mediocrity in point of arrangement, information, and philosophical reasoning, the author has, by more extended reading, and by visiting most of the celebrated mineral springs in this country and on the Continent, provided in the present essay information which will at once render it a standard treatise on the subject of which it treats. We do not pretend to give any analysis of its contents; but, to give our readers some idea of their nature, we shall merely glance generally at the chief divisions, and subjoin a few extracts on some points on which the author communicates very valuable and novel views on the formation of mineral springs.

In the first chapter, on the *composition* of mineral and thermal springs, Dr Gairdner gives a most minute, elaborate, and accurate view of their chemical constitution, of the ingredients which they generally contain, and of the mode in which they are combined.

In the second chapter, devoted to the *position* of mineral and thermal springs, he gives a very interesting account of the actual position, geographical and topographical, and the geological relations of mineral and thermal springs, and of the rocky depositions which they occasionally create.

The third chapter, on the *origin* of these springs, contains a very full and elaborate view of all the theories which have been proposed, and all the facts which have been collected illustrative of their nature and origin. Some of these views are so ingenious, and at the same time show so happy applications of the principles of geological and chemical science, that we believe it will afford no less interest to our readers than it has done to us, to subjoin some of them in the language of the author.