pericardial effusion. Both lung bases were still dull, with crepitation, and the grating friction could still be both heard and felt at the left base in the lower axillary region. He could not spit up the thick phlegm so easily, and there was a continuous rattle in his throat. His temperature was between 101° and 102°. Morning, respirations 52, pulse 104; evening, respirations 56, pulse 104.

From the third to the eighth day the temperature fell steadily to 99°. He had strength to get out of bed occasionally if not prevented, and talked nonsense the greater part of the night. The pulse deteriorated, and on May 25th (the fifth day) it was decidedly weaker, and an ounce of brandy-and-egg mixture was ordered every three hours. His mouth was very foul, the smell most offensive in spite of repeated cleansings, and he became more unconscious, the continuous rattling in the throat masking the auscultatory signs. By the eighth day his pulse was still 108 to 120, but respirations had dropped to 44. He was quieter, but weaker; the suffused and blue look about the face was disappearing, and his heart was acting more steadily, and with increased force. The lung-sounds were clearer in front. The sternum still producing crepitation, but with less movement, and the grating friction in the left side was still evident, and a faint trace of albumen had been detected in the urine each time it had been examined. From the eighth to the tenth day he seemed to improve a little, but was much weaker, and wandering each night; the pulse fell in quality again, and he twitched his arms and hands about on the bedclothes, but at the same time his colour and breathing improved. From June 1st (the eleventh day) he steadily improved, and on the 5th was put upon quinine and digitalis in an effervescing mixture, with the brandy-and-egg mixture every four hours. There had been no movement detected between the pieces of the sternum during the last few days.

On June 16th he had a rise of temperature, with a fresh extension of pneumonia at the left base. He was delirious and noisy at night, and passed evacuations into the bed. This attack passed off, and on the 21st he was free from pain and breathing easily.

From this date he made a good recovery. The brandy-and-egg mixture was stopped on the 21st, and the quinine mixture continued. A faint trace of albumen was detected in the urine on almost every occasion on which it was examined.

On July 11th, the day before he was discharged, it was noted that the chest moved fairly in respiration; the breath-sounds at the bases were good, and accompanied occasionally by dry creaking sounds; these were particularly well heard in the left lower axillary region. At the level of the fourth costal cartilage, the sternum was thickened with perfect continuity; the lower portion of the sternum was rather prominent, as compared with the upper.

REVIEWS AND NOTICES.

A Textbook of Pathology, Systematic and Practical. By D. J. Hamilton, M.B., Professor of Pathological Anatomy University of Aberdeen. Copiously illustrated. Vol. i. London: Macmillan. 1889.

We congratulate Professor Hamilton on having had the courage and enterprise to undertake the writing of a complete textbook of pathology on his own foundations. This is indeed a task which, at the present day, could hardly be carried out by anyone but a professor of the subject, undistracted by the claims of practice, and supported by the resources of a laboratory and of daily pathological experience. Not all the teachers, however thus favourably situated, would have the zeal to begin and energy to complete so serious a piece of work. A glance at his first volume is enough to show that it aims at a standard of comprehensiveness and thoroughness higher than that attained by any other English work on the subject.

The difficulty of such a task is moreover greatly enhanced by the wide extension which Dr. Hamilton, in common with some other recent writers of textbooks, gives to the field of pathology. It is not so very long since, in this country at least, the main task of pathology was thought to consist in the comparison of *post-mortem* appearances with clinical symptoms, and certainly such comparisons will never lose their importance. But this is not the whole of pathology. Next came the epoch of histology through which we are still living; for even now it may be necessary to remind students (if not in some cases their teachers) that the making of fine sections, though a refined and beautiful art, has no more claim to represent the whole science than the coarser anatomy of the dead-house. Indeed, candidates who are strong on spindle-cells and proliferation are sometimes found quite unable to give an accurate description of the naked-eye characters of morbid specimens. Something more is yet wanting. As Dr. Hamilton says, "morbid anatomy and pathological histology will not carry the earnest inquirer beyond a certain point;" and no competent teacher will differ from the dictum that "the pathology of to-day is not delimitable merely as a matter of pure morbid anatomy, pathological histology, pathological physiology pathological chemistry, or clinical medicine; but these are simply the members of a great body, and are indissolubly bound together."

With all these branches of the subject Dr. Hamilton makes a vigorous and, on the whole, a successful attempt to grapple, and the only doubt one feels is whether the whole subject is not somewhat too vast for the limits of one book. However, the wider and more scientific conception of pathology now beginning to prevail, which we trace here as in some other recent textbooks, cannot but have a favourable influence on pathological teaching.

The first part of the work, occupying more than 150 pages, is devoted to technical methods. It contains copious directions for performing *post-mortem* examinations, a very good model of report for note-taking, remarks on medico-legal necropsies, and other valuable matter. Perhaps the most noteworthy point is the method given for examination of the brain. It must be admitted that no theoretically perfect method has yet been devised for this important part of a *post-mortem* examination, and great diversity of practice will be found in different institutions. Dr. Hamilton's method seems rather elaborate, but would be well worth testing practically.

In speaking of microscopical examination, we are glad to see that Dr. Hamilton lays great stress on the immediate examination of fresh specimens, a method now far too much neglected. Many points in the structure of cells are actually much better seen in unmounted specimens than in the finest sections of hardened tissues; and even if this were not so, there is always a certain loss when specimens are set aside for elaborate preparation. As the tissue hardens the clinical interest is apt to evaporate. This part of the work concludes with a tolerably complete account of bacteriological methods.

The sections on hypertrophy, degeneration, and the like, seem rather meagre as compared with other parts of the work. Atrophy is one of the subjects very summarily dealt with. It is defined as "the diminution in size or absolute destruction of a part which results from direct and continuous overpressure where the blood-supply is not deficient." Now a definition is doubtless always an easy target for criticism, and the definitions given by other authors are probably not unassailable, but this of Dr. Hamilton's strikes us as singularly narrow. It would exclude most instances of what is called, clinically, atrophy, and especially what some would regard as the most typical forms; for instance, hemiatrophia facialis. And to lay down that in atrophy the blood-supply must not be deficient seems to savour of paradox.

The great theme of inflammation is naturally a cardinal topic in pathology, and Dr. Hamilton's account of this subject is one of the most elaborate and valuable parts of his book, while it is copiously illustrated with very beautiful figures. The physical causes of the vascular disturbances are fully explained on the basis, partly, of the author's well-known researches in this field. His explanation of them is mainly mechanical, or at least physical, and differs widely from that given by most recent writers. Whether we agree with him or not—and for our own part we are disposed not to agree—it cannot be denied that Dr. Hamilton has earned the right of stating his own conclusions. The least satisfactory part seems to be the account of the changes in the fixed elements, other than connective tissue, in vascular parts; but this point may receive further consideration in treating of special inflammations.

On the other hand, the description of inflammation in non-vascular parts, such as the cornea, is very full, and is based on a minute account of the normal histology. The author's conclusions harmonise as well as could be expected the opposing views of different schools, and give, as it seems to us, the most satisfactory account yet published of this extremely perplexing subject.

The one thing which we miss in Dr. Hamilton's account of inflammation is some general conception giving a synthesis of the

whole subject. We doubt whether anyone reading without previous knowledge his copious exposition would get any clear conception of what inflammation after all really means. Possibly the author holds that the processes thus named have not any real unity, and that, as he says, each kind has to be "considered upon its own special merits." But we must confess we have still a difficulty in understanding exactly what Dr. Hamilton considers to be the proximate cause of the differences between a healthy organ and the same organ inflamed; that is, in what way injuries produce the phenomena observed.

The chapter on healing of wounds is excellent and original, but we miss any explicit statement on the vexed question of the relations of repair and inflammation.

The third part is devoted to diseases of tissues and organs, or broadly to special pathology, though we find also here an account of new growths. This is generally the best illustrated chapter in a pathological textbook, and Dr. Hamilton's figures of tumours are very good. Without going further into criticisms of definition, we might ask whether Dr. Hamilton's definition of sarcoma as "a tumour composed of an embryonic connective tissue which shows no inclination to fulfil its ultimate developmental intention" is any improvement on the older one of Virchow as a tumour of the connective tissue series distinguished by the predominant development of cellular elements, which seems better to account for the very common occurrence of mixed sarcomas.

The origin of glandular cancer from simple glandular overgrowth, or, in other words, cancer passing through an adenomatous stage, is well illustrated, and is a point not yet sufficiently emphasised in many pathological textbooks. This consideration gives increased importance to the local origin of cancer, and the old terms, such as cancer of the breast, or cancer of the stomach, are now used with more of the significance which formerly belonged to them, and which was somewhat lost while cancer was regarded as a more universal process. Such an unmeaning epithet as carcinoma vulgare, though it still lingers in some textbooks, finds very rightly no place in Dr. Hamilton's pages. The chief omission noticeable in this part is that of any discussion of the causes of new growths, a subject not yet settled, it is true, but well worthy of consideration.

We must pass over a full account of the blood, physiological and pathological, including methods of examination and notices of several diseases known or supposed to be due to blood changes, to speak of the concluding part of the volume—that relating to the pathology of the heart and circulatory system.

This will naturally attract special attention, as a sample of what we have to expect in the second volume. Of this section we can speak in very high terms. Cardiac lesions are worked out very thoroughly, both from the clinical and the anatomical point of view, and altogether a more complete summary is given of cardiac pathology than we know of elsewhere, at least in the same compass. The most original part consists of statistics relating to the size of the orifices and thickness of the walls, drawn from the author's own systematic observations, though these results might, perhaps, be more conveniently arranged. We confess we cannot altogether agree with Dr. Hamilton that he has demolished the embolic theory of pulmonary infarctions. He seems to overlook the fact generally recognised by pathologists, that the branches of the pulmonary artery leading to or near the blocks are nearly always obstructed by clots, a fact for which his own explanation does not account. But fully to discuss the question would occupy more space than can be given here.

Looking on this volume as a whole, we regard it as a work calculated to raise the reputation of the British school of pathologists, and as bearing on every page testimony to the author's immense experience and indefatigable energy. Dr. Hamilton's watchword is "thorough." He has spared no pains to give the latest and most accurate information on every part of the subject, while the abundant literary references greatly add to its usefulness for teachers and investigators. The strong side of the book is detail; its weak side generalisation. It is not always easy (as was remarked in speaking of inflammation) to gain a clear notion of each topic as a whole; and a certain deficiency in the art of continuous exposition makes the book more suitable for reference than for reading through. But notwithstanding these objections (which could only be urged against a book deserving to be judged by a high standard) it will doubtless form, when completed, the most important work of reference on pathology produced by any English author.

NOTES ON BOOKS.

The Essentials of Physical Diagnosis of the Chest and Abdomen. By J. WALLACE ANDERSON, M.D., Physician to the Royal Infirmary, Glasgow, and Lecturer on Medicine to the Royal Infirmary Medical School. (Glasgow: James Maclehose. 1889).—The number of students' handbooks of physical diagnosis is now very considerable, but Dr. Wallace Anderson's book will compare very favourably with its rivals. The tabular form of presenting facts is avoided, and the book is, therefore, far more readable than when this dryasdust method is adopted. Moot points are briefly discussed, and the student is allowed to see the grounds upon which current opinion rests. The chapter on the respiratory sounds will be found especially useful on this account. The work is accurate and well arranged, and ought to be popular with students.

Bäder-Almanach, etc. 8vo, pp. 378. (Berlin and Frankfort-a-M.: Rudolf Mosse. 1889. Vierte Ausgabe.)—This book gives an account of all the baths, health resorts, and health institutions of Germany, Austria, and Switzerland. Some good preliminary therapeutic directions are given at the commencement by well-known practitioners respecting the use of particular waters. The bulk of the book is occupied by the official accounts of the various stations arranged systematically. Although the character of such statements is improved of late years, still they are always the better for being criticised impartially. In this consists the superiority for ordinary readers of such works as Flechsig's *Dictionary of Baths*, of which a new edition has just appeared, as he generally pronounces some opinion on the places which he reviews. There is no doubt that the *Bäder-Almanach* contains much useful information, and it is appreciated in Germany, where it has reached a fourth annual issue. It also contains a very elaborate map of health resorts.

Proceedings of the New York Pathological Society, 1888. Pp. 170 with an Appendix.—This small volume of *Proceedings* contains accounts of many interesting specimens and clearly demonstrates that very useful and earnest work is done by the members of this Society. Among the cases described may be mentioned particularly two sets of specimens exhibited by Dr. H. M. Biggs, illustrating disease of the vermiform appendix. In two of the cases death was due to sloughing of the tip of the process; in two the appendix was perforated. There is also an ulcerated and perforated appendix, from a case of typhoid fever, in which the ileum was also perforated and diseased. In two specimens death was due to impaction of solid fæcal matter in the vermiform appendix, and one case is described as tubercular ulceration. An abnormal appendix was exhibited, 9 inches long, and this instructive series is completed by a case in which the opening in the cæcum became obstructed, and the appendix was dilated into a cyst, 4 inches long and 1 inch in diameter. With regard to perforation of the appendix Dr. Biggs had seen ten or twelve cases in two years. Brief records of two cases of actinomycosis are furnished. One of the cases occurred in the mediastinum of a boy; the second was instructive, the patient, a butcher, asked if his disease was like the "little pearls" seen in the lower jaw of cattle. The disease seemed to have commenced in a carious tooth. Among the remaining specimens may be mentioned suppurating ovarian cyst in a child of 4 years, renal calculus in a dog, dermoid cysts of the kidney, and two cases of accessory pancreas in the wall of the duodenum; one from a newborn child, the other from a man aged 35, in whom it simulated a tumour. It is a pity that the descriptions of some of the above specimens are not illustrated by sketches. Appended to the volume is the Middleton Goldsmith Lecture, by Dr. J. M. Da Costa, "On the Relation of Diseases of the Kidneys, especially the Bright's Diseases, to Diseases of the Heart;" and a biographical sketch of the late Middleton Goldsmith, M.D., LL.D., by Dr. John C. Peters.

PRESENTATIONS.—Dr. Peter Yates, on resigning the post of house-surgeon to the Bolton Infirmary and Dispensary, has been the recipient of several handsome presents from the officers, the nursing staff, and patients.—Mr. John Acton Southern, L.R.C.P., of the Derbyshire General Infirmary, was presented by the staff and nurses, on July 19th, with a gold watch as a mark of their esteem and regret at his resignation as house-surgeon, after being in the Infirmary three years and a half.