not have failed in the end to conduct him to professional success. He was well versed in general literature, especially to that relating to travel and discovery; and his conversation, largely permeated as it was by what he had himself seen in his wanderings, was interesting in the highest degree. Perhaps his most prominent characteristics were tenacity of purpose and self-reliance, qualities which had stood him in good stead in many trying circumstances, where weaker men would have succumbed.

His loss is deeply lamented by a large circle of intimate friends, and much sympathy is expressed for his mother on the death of her eldest son.

REVIEWS.

Lehrbuch der Physikalischen Untersuchungsmethoden Innerer Krankheiten. VON DR. HERMANN EICHHORST. Braunschweig: Wreden. 1881.

THESE volumes form the second and third of a series of "short medical text-books," being issued by Wreden, of Braunschweig. The first volume contains the methods of examination of the skin, the temperature, the pulse, and the respiratory organs, including the nose and the larynx. In the chapter on the skin the various changes in colour that are met with in disease, and the conditions of œdema and emphysema are detailed. A section is also devoted to the consideration of the changes that occur in the condition of the skin as to moisture; and the causes of general and local sweating are given so far as known. To the cases of unilateral sweating recorded by others, the author adds some observed by himself at Frerichs's clinique, in which unilateral sweating of the face was met with in patients with large, phthisical cavities in their lungs, the side of the face affected corresponding with the diseased lung.

The chapter on the thermometer is full, and is carefully illustrated by charts of the various types of fever and forms of crisis, &c. The excessively high temperatures that have been recorded by Teale and others are looked upon with some suspicion. The importance of the indications obtained from thermometric readings is duly emphasised. That the value of this instrument is getting more generally known among the

laity in Germany seems apparent from the statement, that in many families it is now a household article, and is consulted before the physician is sent for. The pulse, and the various physiological and pathological conditions which influence it, are next treated of. The section on the sphygmograph gives a well condensed survey of what has been done in that direction, but contains no new facts.

The major portion of the first volume is, however, taken up with the examination of the respiratory organs, and it is enriched by the results of careful observations made by the author in the various clinics to which he has been attached. The section on percussion is particularly full. He uses three varieties of percussion-stroke, strong, medium, and light, the latter being employed when an air-filled organ is to be demarcated from a solid one with the utmost accuracy. A strong stroke, on the other hand, is employed when the object is to elicit the clearness of an air filled tissue beneath a solid one lying close to the thoracic walls; the author in this way recognises not only the presence of cavities in the lungs, but also parts of the lung still containing air surrounded by tissue which has become consolidated. Conversely, he holds that a deeply situated infiltrated part of the lung may be recognised by strong percussion over the spongy tissue, and that the deep borders of heart, spleen, and liver may be similarly demarcated, though they are overlapped by the pulmonary tissue. He departs from Skoda's classification of percussion sounds, finding the distinction into "full" and "empty" untenable. His own scheme is based on:—

1. Resonance—depending on the greater or less amplitude of the vibrations.
  - a. clear.
  - b. dull.
2. Varieties of tone or sound—depending on the periodicity of the vibrations.
  - a. tympanitic.
  - b. non-tympanitic.
3. Pitch—depending on the number of vibrations in a given time.
  - a. high.
  - b. low.
4. Timbre (Beiklang.)
  - a. metallic.
  - b. bruit de pot fêlé.

In the topographical percussion of the lungs he gives the results derived from a careful examination of fifty cases. These differ according as the "complementary pleural space," or part of the pleural cavity not filled by lung tissue during quiet respiration, is obliterated or not. The most noteworthy

points in regard to his demarcation of the lungs are those connected with the delimitation of the lower margins during quiet respiration. That of the right side he has found to have the following position:—

In the right sternal (vertical) line, at the upper margin of the sixth costal cartilage.

In the right parasternal line, at the lower margin of the sixth costal cartilage.

In the right mamillary line, at the upper margin of the seventh costal cartilage.

In the right axillary line, at the lower margin of the seventh rib.

In the right scapular line, at the ninth rib.

Near the vertebral column, at the spinous process of the eleventh dorsal vertebra.

On referring to the second volume, it is found that the position of the upper margin of the superficial hepatic dulness, which ought to correspond with the lower margin of the right lung, as obtained by percussion, is given as follows:—

In the right (vertical) sternal line, at the lower margin of the fifth costal cartilage.

In the right parasternal line, at the upper margin of the sixth costal cartilage.

In the right mamillary line, at the lower margin of the sixth rib.

In the right axillary line, at the lower margin of the seventh rib.

In the right scapular line, at the ninth rib.

Near the vertebral column, at the lower margin of the eleventh rib.

These, therefore, do not correspond. Attempts that we have made to confirm the lower margin of the lung, as above given, have failed; and even the position of the upper margin of hepatic dulness, as above described, seems too low. The latter differs considerably from that described by Murchison, who held that the upper margin of hepatic dulness was convex upwards in the lateral region, a fact of diagnostic value in some cases. In the delimitation of the lower border of the left lung, we have also failed to confirm Eichhorst's percussion. He recognises a tongue of pulmonary resonance (*processus lingualis*) interposed between the cardiac dulness and that of the stomach; while our experience is, that the position of the stomach renders it impossible to say exactly where the pulmonary resonance ends, and the tympanitic note of the

stomach begins. Eichhorst's observations, however, correspond closely with those of Gerhardt.*

Râles are treated of much more briefly, and are simply divided into *dry* and *moist*, the subdivisions of the latter being made according to the number, size, regularity, time of occurrence, strength, &c., of the bubbles. The crepitus of pneumonia is, without hesitation, classed among the moist râles. The examination of the sputum, microscopically and otherwise, is fully detailed; and a considerable chapter on laryngoscopy concludes the volume.

In the second volume are found the methods of examination of the circulatory apparatus, and of the abdominal organs. It is here that we chiefly meet with illustrations of his various percussion strokes in their application to the delimitation of the solid organs. For the heart three separate dulnesses are given: small or absolute dulness, made out by a light stroke; large dulness, made out by a strong stroke; and a larger dulness, called the palpation-percussion or resistance dulness, made out by recognising the increased resistance felt to the right of the sternum when percussing with finger upon finger. Such results are possible, however, only if the strong percussion stroke can elicit a deep dulness with accuracy; and as we cannot admit that the laws of physics give good grounds for this belief, we cannot accept the author's conclusions as of practical value. Similar remarks apply to the examination of the liver and spleen.

Following on the examination of the abdominal organs are sections on the various excretions. Those on vomited matters and on fæces are more complete than in any work of equal size with which we are acquainted. The examination of the kidneys, and of the urine, also receives due prominence. The volume concludes with a brief note on the examination of the sexual apparatus, a subject pertaining more to the gynecologist and the surgeon than to the physician. The examination of diseases of the nervous system has been altogether omitted, owing to the intimate relation between electro-diagnosis and electro-therapeutics, and the impossibility of discussing the one without entering on the other.

For this work, as a whole, we have nothing but praise. Every section contains a more or less full account of the present state of our knowledge in regard to the subject of which it treats, and many of them are enriched by the results

* *Lehrbuch der Auscultation und Percussion mit besonderer Berücksichtigung der Inspection, Betastung und Messung der Brust und des Unterleibes zu diagnostischen Zwecken.* Tübingen. 1866.

of Dr. Eichhorst's personal experience. The 174 illustrations add greatly to its value; all of these are beautifully executed, but a few are rather diagrammatic. This text-book will take its place as a standard work on physical diagnosis; and if the other volumes of the series are only nearly equal to it in merit, they will receive a hearty welcome.

A Treatise on Orthopædic Surgery. By J. WARRINGTON HAWARD, F.R.C.S., Surgeon to St. George's Hospital. London: Longmans, Green, & Co. 1881.

THE work before us is not intended as an exhaustive treatise on orthopædics, and its author does not lay claim to any special originality either concerning the views expressed or the treatment advocated. Mr. Haward has written the work partly because he had heard from students that they had a difficulty in obtaining the details concerning orthopædics from their ordinary text books on surgery. These works do not enter sufficiently into detail in their chapters on orthopædics, and as the success of this branch of surgery so largely depends on accurate attention to minutiae, it is as well that the student should have a work embodying these within his reach, especially a work like this one written by a practical surgeon. The work, as a whole, is quite abreast of the time, though there are some peculiarities, as when he states that it is a striking fact that although in London rickets is one of the commonest diseases among the children of the poor; yet in the large manufacturing towns, where children are employed in factories, and thus soon become a source of income rather than expense to their parents, rickets is extremely rare. Glasgow is a large manufacturing town, where children are employed in factories (above the certified age), and yet rickets is quite as common in Glasgow as in London. The same would apply to Manchester or Lyons as it does to Glasgow, yet these are also large manufacturing towns where children are employed in factories. He regards "spinal supports" as inefficient and believes that they interfere with the natural action of the respiratory and other muscles, and with the expansion of the chest, besides giving the child a certain amount of extra weight to carry: objections which apply to plaster of Paris and other jackets. He goes back to the recumbent posture as being absolutely necessary for the remedy of posterior curvature of the spine. If we were inclined to be critical, we would say that Mr. Haward does not enter sufficiently into detail in some