

In the excellent plate of the contrasted male and female pelvis (xiv.), we are glad to see that he has given the proper obliquity of position, showing the coccyx slightly above the level of the pubes.

A brief outline of the bony landmarks of the body, a subject of vital practical importance, and a full index concludes the volume. The index rather oddly includes scraps of philology and biography, in giving the derivation of words, especially from the Latin or Greek, or from the early anatomists. These last, too, are not always accurately given. Thus Mr. Wagstaffe speaks of the "Casserian" ganglion, instead of naming it from the Viennese anatomist, Gasser. Casserius does not even mention the ganglion. Eustachius is recorded with the date 1570, and Fallopius 1560; yet they died respectively in 1574 and 1563.

When another edition of this excellent work is demanded, we would also suggest that the joints be included in it, since, except in the first plate of the entire skeleton, the relation of the bones to each other is entirely unrepresented in the plates of the separate bones, and because a good, clear, and short account of the articulations on the same general plan would be a most valuable addition to our present literature.

W. W. K.

ART. XXXVII.—*Lectures and Essays on the Science and Practice of Surgery.* By ROBERT McDONNELL, F.R.S., etc. Part II. *The Physiology and Pathology of the Spinal Cord.* pp. 137 to 320. Dublin: Fanein & Co., 1875.

HAD the title of this book been "*Lectures and Essays on the Physiology and Pathology of the Spinal Cord,*" it would have expressed its scope clearly, but what it has to do with the "*Science and Practice of Surgery,*" except in so far as Physiology influences all the practical branches, we are at a loss to see. Scarcely a single surgical remark is to be found in the entire work, and what is stated is neither new nor important. In general, the text is as well expressed as it is beautifully printed. But we see no reason for publishing these lectures and essays. They are mainly a re-statement of the experiments of Brown-Séquard and an unimportant commentary on them, with a few references to Bernard, Van Deen, Prochaska, Radeliff, Stillig, etc. And as if this re-statement were not enough, some experiments and plates are made to do duty twice.

An exception must be made, however, in respect of the Second Essay, entitled "*A New Theory of Nervous Action as regards the Transmission of Sensation along the Nerves*" (pp. 217-232). The author rejects the embrous system of eleven different kinds of nerve fibres for touch, tickling, pain, temperature, etc. of Brown-Séquard, and applies the undulatory theory of the physical sciences to physiology.

"I conceive," he says, "that the various peripheral expansions of sensitive nerves take up undulations or vibrations, and convert them into waves capable of being propagated along nervous tissue. Thus the same nerve tubule may be able to transmit along it vibrations, differing in character and hence giving rise to different sensations; and consequently the same nerve tubule may, in its normal condition, transmit the wave which produces the idea of simple contact, or that which produces the idea of heat; or again the same nerve tubules in the optic nerve which propagate the undulations of red, may also propagate in normal vision those which excite the idea of yellow or blue, and so for the other senses" (p. 221). "Various solid and liquid bodies, as we know, exercise

a selective absorption both for heat and light, in virtue of which certain rays are set apart to be stopped, while certain others are allowed to proceed; after an analogous fashion, certain nerves exercise a so-called selective power, permitting certain undulations to proceed, while those of a different wave-length are intercepted. Most substances, including those that are transparent for light, are generally opaque for dark heat of great wave-length, and small refrangibility. So we have no reason to think that heat can excite in the retina undulations capable of being propagated by the optic nerve to the sensorium, although light certainly does so" (p. 224).

He who reads this Essay will profit by it, and may throw aside the rest of the book. The theory is simple, commends itself to common sense, and is in accord with both physiology and the other natural sciences. While perhaps distinctly formulated here for the first time, it is, however, an idea that has been entertained and taught for some years by the reviewer and perhaps by others.

W. W. K.

---

ART. XXXVIII.—*On Compression of the Fœtal Head by the Forceps and Cephalotribe.* By HUGH L. HUNTER, M.D., Philadelphia. Reprinted from "Journal of Obstetrics" for May, 1875. 8vo. pp. 29. New York: William Wood & Co.

This pamphlet contains the last contribution to science of the late distinguished Professor of Obstetrics in the University of Pennsylvania, and embodies his views, and the results of his experience in the use of the forceps as tractors and compressors, and also of the "*compressor cranii*." The paper is clearly written and very forcibly expressed; and coming from so high a source is well worth a careful perusal. To give some idea of its contents, we will present in order the several propositions as set forth by the author.

1. "The vault of the fœtal cranium is so constructed as to render it capable of compression."

2. "Compression does actually occur in labour."

3. "Compression of a fœtal head at term can be effected to a great extent with safety to the child."

4. "The death of the fœtus during labour from pressure results from two causes: 1st, the diminution or suspension of the functions of placenta and funis; and 2d, from the cessation of the circulation generally."

5. "Compression upon the head of the fœtus can often be made by the forceps, not only with safety, but with great advantage during labour."

6. "Delivery in moderately contracted pelvis can be effected with greater safety by the forceps than by podalic version."

7. "The obstetric forceps, when well constructed, is the best extractor in cases of dead children, and also in cases of craniotomy."

8. "The introduction of cephalotripsy into obstetric practice by M. Baudeloque, Jr., should be regarded as the greatest improvement in operative midwifery since the seventeenth century."

Prof. Hodge was a strong advocate of the application of the forceps in reference to the fœtal head rather than the mother's pelvis, and after numerous alterations and experiments, finally perfected the instrument which bears his name, and has gone into such extensive use in this country. Speaking of applying the forceps with the blades "as nearly coincident as possible with the occipito-mental diameter of the head," he remarks, page 13: "This is in contravention of the German practice, followed by many English practitioners, even by Dr. Barnes in his recent excellent work, of applying the blades of the