Lenoir, after examining 200 skulls, says that in no instance has he been able to find continuity between the tympanic bone and the spine. He appeals to comparative anatomy, and finds that in the horse, in which the tympanic ring is almost completely closed, that still, in the situation corresponding to the spine in man, there is a distinct osseous point, but definitely separated by a deep groove from the tympanic ring, and he feels justified in concluding that this point is the counterpart of the meatal spine in man. The same conditions obtain in the gorilla. The writer considers the spine to be a derivative of the element from which the outer portion of the epitympanum is formed (which would correspond to the squamosal). As regards the constancy of the spine and its value as a landmark, after an examination of 100 adult skulls, he only failed to find it present once, and that unilaterally; he therefore observes, "Are we not justified in depending on its existence for operative purposes?"

As to its existence in children, it is not present till the fourth year, and then only faintly marked. Only in children above the age of ten years is it well developed. As a landmark before the age of ten years it is therefore useless, but he points out that in its absence we have an alternative one. He states that immediately above the supra-meatal wall of the osseous meatus, and below the supra-mastoid ridge at the origin of the zygoma, is a spot in the bone riddled like a sieve with vascular foramina, and in the fresh condition so congested as to resemble a blood effusion. At this point the bone is soft, friable, and much congested. This spot he designates "tache spongieuse." In fœtuses of more than eight months, and in children from one to two years of age, he always found the antrum corresponded to the above-

mentioned spot.

Broca has invariably, in his clinical experience, tapped the antrum in young children at this spot. Later on, as the spine becomes developed, the vascular spot mentioned coincides with the point of

bone immediately posterior to the spine.

The writer points out that this vascular zone describes, in proportion to the age, the arc of a circle having its centre at the apex of the osseous canal, gradually shifting in position from above downwards and backwards, becoming first apparent above and behind the osseous meatus as above described, and ending directly behind the spine. From a study of the position of the antrum at various ages he finds it coincides in position of being deep to the vascular spot, hence its special value as a landmark before the spine is present.

H. Clayton Fox.

BACTERIOLOGY.

Raw, Nathan.—Human and Bovine Tuberculosis. "British Medical Journal," January 31, 1903.

In a preliminary note upon this subject, the author says that although, previous to the paper by Koch in 1901, he was taught to believe that the two diseases were really identical, he has, after careful observation, entirely changed his views. He considers that whilst the two diseases are separate and distinct, the human subject is susceptible to bovine tuberculosis, more especially in the early years of life, and also that bovine tuberculosis may set up serious lesions in the human body.

He is of opinion that there is some evidence to assume:

- 1. That there are two distinct varieties of tuberculosis affecting the human body, one produced by human tubercle, the other produced by bovine tubercle.
 - 2. That human and bovine tuberculosis are separate and distinct.
- 3. That bovine tuberculosis, entering the alimentary canal in milk may set up tabes mesenterica, more especially in children.

4. That bovine tuberculosis is probably the cause of enlarged lymph

glands, tuberculous joints, and lupus.

- 5. That true human tuberculosis, or phthisis pulmonalis, is always conveyed from one person to another by infection, and generally from advanced cases of phthisis.
- 6. That every effort should be made to stamp out tuberculosis in cattle, and that milk should be boiled before use by children.

W. Milligan.

REVIEW.

Diseases of the Nose, Pharynx, and Ear. By Henry Gradle, M.D., Professor of Ophthalmology and Otology, University Medical School, Chicago. 547 pages and 146 illustrations. W. B. Saunders and Co., Philadelphia and London.

This work, which is another of the text-books issued by this enterprising firm, is written with a view of giving information to those who are apt to fly in a hurry to a book to help them to elucidate or treat a difficult case. In order to assist this method the text is subdivided into sections, and the index refers entirely to the numbers of the subsections and not to the pages, the enumeration of the pages appearing to have no useful function except for reference to the heading of chapters. Of the 547 pages, the first 328 are devoted to diseases of the nose and naso-pharynx, and, although these are often treated in a somewhat casual and superficial way, the general impression one derives is that the book will be found serviceable to the particular class of individual to whom it is addressed. This book is written by a postgraduate teacher of much experience, and as such, of necessity, will carry much weight, especially where he is known. But we are certain that most practitioners of general medicine would find it contain a very large amount of useful information.

BOOKS RECEIVED.

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The Johns Hopkins Hospital Reports, Vol. X., Nos. 6-9. Baltimore: The Johns Hopkins Press. 1902.

Carl Zarniko, M.D. Die Krankheiten der Nase und des Nasenrachens. Berlin: S. Karger. 1903.