

## REVIEWS OF BRITISH AND FOREIGN LITERATURE.

---

*Prehistoric Problems.* By ROBERT MUNRO, M.A., M.D., F.R.S.E.  
Edinburgh and London : William Blackwood & Sons. 1897.

No one who has given a thought to the evolution of man could fail to be interested in what Dr. Munro has to say on this subject. The various problems which he deals with are presented in a most readable form, and touch upon many of the points which are at present engaging the attention of the anthropologist. The book is divided into two parts, namely, anthropological and archæological. Each chapter is more or less complete in itself, dealing with a special subject, and in most cases showing little or no sequence with that which precedes it; but this in no way detracts from the interest or value of the book, and by the general reader may even be considered as an advantage. Instead of being presented with one large canvas on which is depicted one elaborated subject, we are given a series of small and separate sketches, in which are portrayed the characters and mode of life of certain of the prehistoric inhabitants of Europe. In one we have a view of a fishing expedition setting out, it may be from one of these lake-dwellings upon which Dr. Munro is so great an authority, armed with deer-horn harpoons of various designs; in another we are given a glimpse of our early progenitors disporting themselves on the ice on rude skates, made of the metacarpal bones of a horse; or it may be of an early agriculturist, laboriously gathering in his meagre harvest by means of a minute stone or bronze sickle; or of a trapper sauntering along the river bank and setting traps of very ingenious design for the capture of the beaver or the otter. Not the least interesting of this series of prehistoric sketches is one in which we are introduced to the early surgeon, patiently scraping a hole in the cranial wall of an epileptic girl, with the view, no doubt, of affording the evil spirit a means of escape, and thereby foreshadowing the brilliant results of modern cranio-cerebral surgery.

In an address delivered in 1893 at the Nottingham meeting of the British Association, Dr. Munro dwelt upon the great step in human evolution which was attained when man assumed the erect posture. He argued that this attitude of body was a necessary preliminary to the increased development of the brain and the expansion of the cranium. The arms, set free from the menial office of conveying the body from place to place, became the servants of the mind, and with so great a mutual advantage that the ultimate result is a "human hand" and a

“human brain.” This address is reprinted in full in the present volume, and the theory is further elaborated and more strongly advanced. As originally stated, Dr. Munro’s views are not only reasonable but in many respects convincing; but now he pushes the matter further, and separates the two evolutionary phases of the assumption of the erect attitude and of the brain development by too great a gap. Instead of allowing these two changes to go on to a large extent concurrently, he presents us with a finished lower limb, long before the cranium has divested itself of its simian characters. He accepts *in toto* Dr. Dubois’ views in regard to the so-called *Pithecanthropus erectus*, and fashions these into one of the main pillars of support of his theory. A most grotesque progenitor is thus presented to our eye, with lower limbs as long and as strong as those of the present day, shaped and moulded upon lines identical with those of a modern civilised man; and upon the shoulders of this individual he places a simian head. Such a being could only be compared with some of the mythological monstrosities of the ancients—with this exception, that the ancients were generally in the habit of dignifying the upper part of the body and degrading the lower part.

The remains out of which Dr. Dubois has created a new family (*P. erectus*) were discovered in Java in 1891–1892. They consist of a calvaria, two molar teeth, and a femur. They were all found under the same geological conditions, but not at the same time, nor did they lie together. The femur was placed at a distance of 15 metres from the calvaria.

The publication of Dr. Dubois’ memoir on these remains was immediately followed by keen criticism in almost every part of the scientific world. Views of apparently the most diverse kind were expressed, and Dr. Dubois has arranged his critics in three classes, namely—(1) Those who consider the cranium to be that of an ape; (2) those who think that it represents an intermediate link in the human evolutionary chain; and (3) those who are of opinion that it is simply a human skull of a very low grade. Dr. Munro is rather inclined to be sarcastic over what he considers to be the very opposite views entertained regarding the Java cranium, but a good deal of this discrepancy of opinion may be accounted for by the very different interpretations which different writers give to the word “human.” In its relation to structure it is a very vague and ambiguous word, and it is not only difficult but well-nigh impossible to appreciate the precise value which different writers give to it. We speak of a “human line of descent.” I presume that by this we refer to the hypothetical line in the genealogical tree, which extends from the point at which the last simian offshoot has taken place up to its terminal end, which is represented by civilised man. At the mid-point of this line we would have a progenitor with simian and human characters more or less equally balanced; as we proceed towards the terminal end, human characters would gradually gain the ascendancy; but as we pass in the opposite direction, to the place where this line joins the common stem, the ape characters would increase and the human characters gradually decrease, until, indeed, they would finally reach a vanishing point. Although Dr. Dubois has classified his critics into the three categories indicated above, and Dr. Munro follows him in this respect, it is very apparent that this

is a most unfair and a most unsatisfactory manner of representing the true state of affairs. It is more than likely that all who have written on this subject would be at one in giving a place to the so-called *P. erectus* (judged from the cranium alone), at some point on the hypothetical line of human descent, and it is quite conceivable that some of these writers might even apply the term "human" to every primitive form represented upon that line. Of course the natural course to pursue would be to bisect the line and restrict the term "human" to those of our progenitors who lie above this point. At whatever point on the line we place the Java specimen, it must be regarded as an intermediate form; but its characters all point to its occupying a place very much nearer the bottom than the top of the human line of descent. The simian characters predominate, and, with the single exception of its great capacity, it presents no other marked human feature.

The discrepancy of opinion regarding the Java cranium is also in part due to the fact that the earlier critics had only Dr. Dubois' original memoir before them when they expressed their views on the subject, whilst the later critics had the advantage of handling the specimen itself. The original description was admirable in every way. It showed great erudition on the part of the author; and yet, some way or other, it failed to bring out in their full strength some of the more striking simian characters of the cranium. Two of the earlier critics (Petit and the present reviewer) have therefore somewhat modified their views, and now give the specimen a much lower level than they were inclined to do at first.

The femur is unquestionably a human bone; not only so, but in almost every feature it resembles the femur of a modern civilised man. It presents none of those characters which we are in the habit of associating with the femur of savage races, and still less any of those features which we have some reason to believe were peculiar to the femur of the early prehistoric races. It shows not a trace of those marks which distinguish the femora of races who assume while resting the squatting attitude. From such a bone we can readily reconstruct the lower limb to which it belonged. Its articular surfaces, its neck, its shaft, all bespeak a limb in every respect similar to that of a modern European; and, further, a limb not particularly muscular and somewhat feminine in its build. Such is the femur that Dr. Dubois and Dr. Munro would have us associate with the simian skull.

No doubt, by dissociating the femur from the cranium, we are landed in a dilemma which in the present state of our knowledge it seems impossible to overcome. The two specimens were found in the same alluvial bed and under precisely the same conditions. It would almost seem as if they were deposited there by the same flood. The evidence afforded by Dr. Dubois on this point is most precise, and, assuming that he has not been misled, it is difficult to arrive at any other conclusion than that the cranium and the femur possess the same degree of antiquity. How, then, can we account for a femur so modern in its pattern existing at a period long antecedent to that to which the famous remains of Spy belong? It is impossible to answer this question, but further investigations in the same geological beds may ultimately afford a solution of this problem. Dr. Dubois was keenly alive to this difficulty. This is

shown by the strenuous efforts he has made to fit the two specimens together. In the cranium he tries to detect characters which would suit it for the erect posture, and in the femur he thinks he sees certain features which indicate that the individual that possessed it had not lost all his arboreal tendencies. One point is certain, namely, that the interest attached to the cranium is in no way touched by any conclusion that may be arrived at in regard to its antiquity. No matter what its age may be, it constitutes a distinct link in the evolutionary chain of man—the most important link, indeed, which has yet been discovered.

D. J. CUNNINGHAM.

---

*Outlines of Practical Surgery.* By WALTER G. SPENCER, M.B., M.S., F.R.C.S. London: Baillière, Tindall & Cox. 1898.

WE learn from the preface that the author has limited his book to practical subjects, and that details of pathology and bacteriology have been intentionally omitted. An attempt has been made to bring together, in one handy volume, the principles, and to a considerable extent also the details, of treatment applicable to the various surgical affections considered regionally.

The work is divided into two parts. Part I.—about a quarter of the book—is devoted to the practical details of general surgery. The opening chapters dealing with wound treatment, anæsthesia, and with general questions connected with surgical operations, are on much the same lines as those to be found in books upon minor surgery and bandaging. The latter subject, however, is too briefly treated to be of much practical value to the student; and the same remark applies to ulcers and their treatment.

The author prefers an antiseptic treatment of wounds, but takes the wise precaution to wash away all superfluous antiseptic with a simple aseptic fluid. Carbolic acid and permanganate of potash are the two antiseptics which find most favour. We do not think that many surgeons will be satisfied with the means advocated for the sterilisation of instruments and silk. The remaining chapters of Part I. are occupied with the practical surgery of the vessels, nerves, skin, and mucous surfaces, the muscles, bones, and joints. The various intestinal sutures are well described and clearly illustrated.

Part II. deals with the regional surgery of the head and neck, the chest, abdomen, and pelvis, the extremities, and the spine. What pathology is introduced in these sections is well up to date and sufficient to lead the student up to appreciate the principles of treatment, which have been laid down with admirable clearness and judgment.

Almost every possible lesion of the various regions has received its due share of attention; and the practitioner will be glad to find that due regard has been paid to all the minor surgical affections. Considering that the regional plan has been rigidly adhered to, there is wonderfully little repetition.

In a work so essentially practical, there will of necessity be found methods which are open to criticism. In removing the vermiform appendix, we fail to appreciate either the advantage or the necessity of stitching the stump to the parietal peritoneum before amputating the