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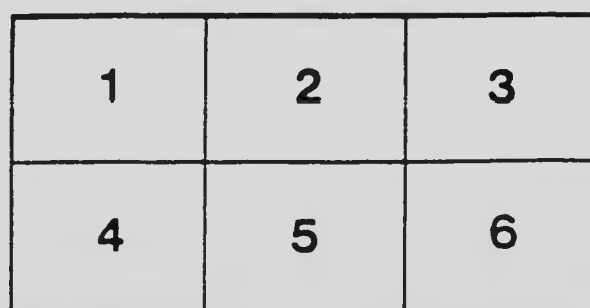
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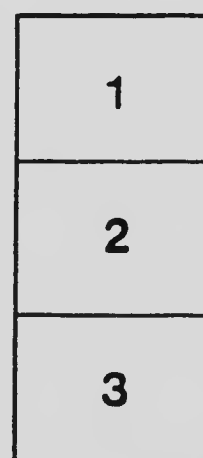
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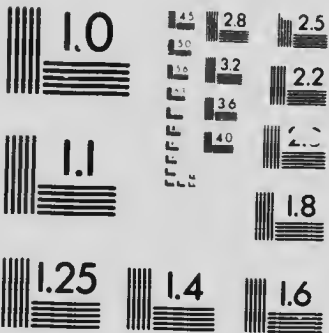
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THE STUDY OF ANATOMY.

BY

CHARLES A. HEBBERT, M.R.C.P., London,
Professor of Anatomy, Bishop's College, Montreal.

Reprinted from the Montreal Medical Journal, December, 1903.

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THE STUDY OF ANATOMY.

BY

CHARLES A. HEBBERT, M.R.C.P., LONDON,
Professor of Anatomy, Bishop's College, Montreal.

INTRODUCTORY LECTURE, 1903.

One of my teachers for whom I had a very great respect and esteem, wrote in the introduction to his first book, "that a time came in every man's life, when it was becoming to him to give the result and expression of his own experience and observation so far as in him lay," more especially to further in every possible way, the progress of his students, to encourage their efforts to succeed and to strengthen their energies to master the subject or subjects of their investigation. In such a spirit, help may be suggested by the description of one's own difficulties and failures in learning this most important branch of his medical training, the basis in fact of all his professional studies.

When I use the term profession, I say the most acceptable, the best accepted and proper phrase to indicate our position in the world, a term honoured by all nations as above the sordid consideration of greed. Never let your profession be degraded by such conditions as might be indicated in the conduct of a grocery or general utility-store, or other business conducted on so-called "business principles" dealing with mere personal advantages, inconsiderate of others' comfort, health or condition.

To return to our original subject, though much I may say will apply to other lines of the study of medicine I insist that a thorough knowledge of the frame and anatomy of the human body is *imperative*, before any future proceedings or interference are suggested or undertaken. You cannot too earnestly think what the value of this study may be to you, and it is in the after life of your career that you will learn to esteem, as of infinite importance, the time, often wearisome

and painful, sometimes almost beyond endurance, you have spent in the acquisition of your knowledge of anatomy. You must always be alive to the fact that your study of anatomy and its foster sister physiology, are only preparations for your aid to the sick and suffering and your knowledge of or the want of it, may be the cause of life or death to your patients. Never let this fact be absent from your minds, you are assuming the gravest responsibility, if you neglect this serious and important study. An eminent surgeon in England told me that busy as he was, he never failed to read some pages of his book on anatomy every day in his life, and he attributed much of his success to this daily re-collection.

In approaching the subject let me impress on you the value of the study of anatomy as an element, a great, important educational element, not only in this special branch, but in all your future life interests and work. When a traveller first visits a new country he uses all his senses and applies them to his own progress and advantage. That is, he observes, reasons on details and decides his further action. In fact he follows the processes of mind as laid before you in your works on logic and physiology. 1st perception or apprehension; 2nd comparison or reasoning; 3rd willing or decision. In your work do not forget that by these same simple processes you will most easily master, and when mastered, retain your details of the subject. Use your common sense and apply your comprehension of details as in ordinary life. By such means you will find the value of the study, still aiding in your life education, leading to trains of thought and ideas, at first you will think hardly conceivable; you will learn those essential conditions of scientific thought, accuracy of details, clearness in description, conciseness in expression.

All these factors in your education I repeat are of the highest importance, and I cannot too emphatically and earnestly insist on your deliberate consideration with regard to your teachers, or whatever title best or least befits their dignity, think of them as guides, who have tracked and passed over the trails you are invited to follow. They have, as all guides, found the way "o'er moor and fen, o'er crag and torrents," and encountered many obstacles and dangers. They are merely showing you what they have experienced and endured. Such faithful guides trust! and they will trust you. A faithful trust in a man who is believed to be loyal to work and endeavours, begets loyalty, honest and manly work in his pupils and disciples. It is by such genuine qualities that the greatest teachers and instructors of our art, have aided humanity's interest and well being: *nihil dico amplius.*

One of the first difficulties you have to meet with is the nomenclature, often vague, grotesque and at first sight apparently unmeaning, but it is founded on the work of centuries, the work of men who patiently and labouriously examined the body under conditions unknown and unappreciated in these times. Terms which they used and have handed down to us, are derived from the current language of science, Greek, Latin and their derivatives. Many names of illustrious observers and workers are used in the description of tissues and parts of the body, and we have to mention those names in our lectures, names though to be remembered and thought of by every earnest student. They are those who have simplified and illumined our work. Recall these names, Harvey, Vesalius, Scarpa, Paré, Colles, Quain and others, and we must acknowledge with all feelings of reverence and gratitude, the genius and carefulness of our great predecessors.

Other terms are used to denote the position of parts, these are sometimes direct derivatives of Greek or Latin and sometimes hybrid. These certainly present trouble to the tyro, but they have the authority of age and tradition and so must be respectfully learnt: I refer to such words as *Acromion ἄκρος ὤμος* the tip of the shoulder olecranon *ὠλην κεραι* contracted to *κράς*, the elbow tip. All such troubles can be overcome by strenuous and constant labour.

The next obstacle will be the learning of the mechanism of joints and the bony framework. The longer we study the more we appreciate the wonderful and interesting arrangement of these parts of our body. You will learn the structure of the wrist and hand, showing how precision, dexterity and delicacy of movements are possible owing to the number, variety and arrangement of the articulations, how force is distributed and friction is minimized. You will learn how in other parts strength is effected and weight is maintained by the massiveness and thickness of the bones, as in the pelvis and you will still further learn how such delicate, fragile structures as the brain and spinal cord are protected and supported with the least possible danger to their important function and action. Do not be discouraged if you find you do not readily recollect the facts of anatomy. It will come in time and remember "*Quam se colliget animus creavit, tum agnoscit illa reminiscendo.*"

When the facts they remain. The brain never forgets

Anatomy literal sense means the dissection of parts by cutting. *Ἀνατομή*. It is difficult to determine the date at which this science began to be cultivated, but it is probable from the earliest times some nations took advantage of favourable circumstances to acquaint themselves with it. The Druids, priests judges and physicians

executed victims as sacrifices, and no doubt availed themselves of the opportunities of acquiring some knowledge of anatomy.

Æsculapius dissected animals for the instruction of his students and his descendants, the Æsclepiades founded the schools in Cos, Rhodes and Cnidos. The Jews did not neglect anatomy, which they studied from the carefully prepared bones of their ancestors and their manipulation for embalming. But the first real progress was made by Erasistratus, born, 300 B.C., who obtained permission to dissect human bodies. Up to that time the work had been done on animals with a view to study the comparative anatomy of man.

Herophilus, whose name remains with us as a term in the skull ('Toricular Herophili'), was born in Carthage about the same time and was reported to have dissected living subjects in Alexandria. Parthenius, 200 B.C., published a book on the dissection of the human body. The next great name was Galen, A.D. 181 (*Vena galeni*), who was the principal historian of the subject and to whom we are indebted for the knowledge of the works of the earliest observers from Æsculapius to his own time. Anatomy was now neglected for a long period, till in the reign of Frederick II., of Sicily, A.D. 1191-1250. This intelligent monarch made a law prohibiting the practice of surgery without a previous knowledge of anatomy. In the 16th century we have such names as Lacuna, Sylvius and the great Vesalius, who has been denominated the founder of human anatomy. After many troubles and persecutions on account of his advanced opinions and active investigations, he was recalled to Italy and succeeded his friend and former pupil Fallopius in the Chair of Anatomy at Padua. One of his achievements was the description of the sphenoid bone, and his name is curiously perpetuated by a minute foramen in the great wing. Is not this an irony? It reminds one of Hamlet's sarcastic remark:

"To what base uses we may return, Horatio!"

"Imperious Cæsar, dead and turned to clay,

"Might stop a hole to keep the wind away."

A contemporary of Vesalius was the eminent Eustachius.

In the 17th century progress was rapid. Harvey, in 1619, discovered the circulation of the blood. Shakespeare, who died in 1616, wrote in his play *Julius Cæsar*, as if it were a prophecy of this discovery: (*Brutus to his wife Portia*).

"You are my true and honourable wife,

As dear to me, as are the ruddy drops

That visit my sad heart."

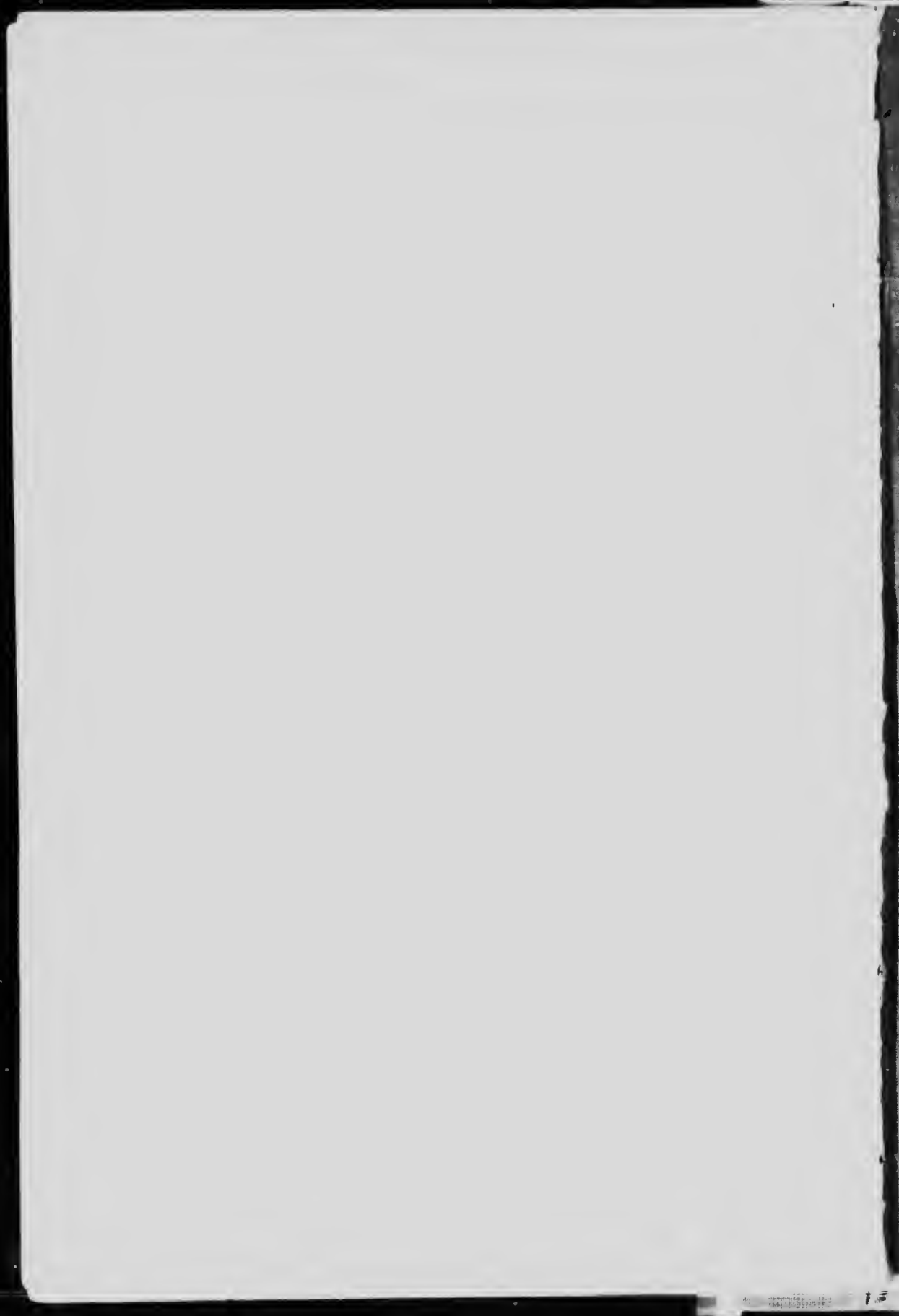
The microscope was employed to detect the small vessels. The

lymph vessels were demonstrated by Aselli, and in the same period Wharton, Malpighi and Ruysch were distinguished by their work.

In the next century we have records from every nation in Europe, Italy still maintaining its preeminence, Pacchioni, Valsalva, Morgagni, Santorini, etc. In France, Winslow, Vieussens, Richer. In Germany, Haller and Meckel. In Great Britain Hunter, Cruikshank, Monro, Sir Charles Bell. In Holland, Boerhaave and Bohm. I only select a few representative names, but there are many others hardly less illustrious. These I mention, you will constantly hear of, and my object is to impress on you the work which has been accomplished in this science, through so long a period under such arduous circumstances, and to ask you to think what devoted labour and careful observation these mighty predecessors gave for the benefit of their posterity and to accept and revere them as noble examples, stimulating and encouraging your own studies and investigations. I will ask you to forgive me if I have been prolix. I have spoken as I have thought, and my experience as a student has dictated:

"Neque vera laus et detracta
Oratione nostrâ, neque falsa
Affecta esse videatur."

1917



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