

Reviews.

DISPLACEMENT OF KIDNEY.

DR. LONGYEAR, who believes that in the nephrocolic ligament he has discovered the principal positive etiologic factor in nephroptosis, or floating kidney, has presented his views in a volume entitled *Nephrocoloptosis*.¹ He holds that, owing to the character and attachments of the nephrocolic ligament, nephroptosis must, save when due to injury, be secondary to a coloptosis. On that account the displacement of a kidney must be considered as associated with a prolapsed colon, the bowel never being left out of consideration. As Glenard says, we may find enteroptosis without nephroptosis, but never nephroptosis without enteroptosis.

Whatever may be the truth of his theory and the value of his method of operative treatment, it must be admitted that Dr. Longyear has taken great pains in demonstrating the anatomy of the kidney and the parts concerned when it is displaced, adding instructive drawings and radiographs. He describes at great length the manner by which the nature and relations of the nephrocolic ligament may be made clear in the dissecting room. It is an irregular aggregation of fasciculi which may be torn and rendered useless for purposes of visceral support if handled roughly in the course of an operation, but, when bunched together, the fasciculi have much resisting power. It is inserted into the posterior aspect on the one side of the ascending and on the other side of the descending colon, between the peritoneal attachments of the bowel. It is adherent ventrally to the peritoneum above its attachment to the bowel, and its tissue blends with the attenuated wall of the anterior lamella of Gerota's capsule, a structure derived from the subperitoneal fascia. That capsule encloses the kidney and its fatty envelope, but not completely. It is more or less open below and entirely open towards the median line. The two lamellae of Gerota's capsule meet at the upper end of the kidney and send fibres to the under surface of the diaphragm; some pass between the upper pole of the kidney and the suprarenal body, sending fibres to both, which form a loose attachment, easily broken down. Hence the suprarenal body remains behind when the kidney is removed, except when there have been local inflammatory changes causing adhesion. Dr. Longyear insists that the more important part of the capsule is that which is inferior. The kidney, when descending, carries with it its fatty envelope, but the capsule of Gerota, being fixed, remains in place, and being open at its inner aspect allows the kidney to slip downwards out of its embrace.

The principle of a sound mechanical treatment of ptosis of the kidney is the removal of the downward strain of the nephrocolic ligament and the maintenance of pressure of the intestine against the kidney from the direction of the median line, so that it cannot easily slip out of Gerota's capsule at its only side open towards the median line. Dr. Longyear describes and figures a special truss which he believes to be suitable for the support of the displaced kidney. We find it difficult to estimate the comparative merits of this apparatus and that used by other experienced surgeons who hold other views.

The author's principles of operative treatment are based on his anatomical views already related. He denounces the stripping off of the fatty capsule and the fixation of the kidney to the adjacent structures and tissues in the loin. The kidney is fixed, but the patient is not cured. The result of freeing the fatty capsule from the kidney is to increase the mobility of the ascending colon and caecum, so that the traction exerted by the large intestine not only continues, but is augmented. The prime factor in surgical therapeutics, according to Dr. Longyear, is fixation of the colon, fixation of the kidney being of secondary importance. The operation which he has devised is described at full length and explained by drawings. The illustrations of the different steps are

of the best quality, made the clearer by skeleton sketches opposite them. A lumbar incision being made, the transversalis fascia is laid open and the subperitoneal (not the circumrenal) fat exposed and pushed downwards. Gerota's capsule, a pinkish-coloured membrane somewhat resembling peritoneum, now appears. In order to avoid the peritoneum the incision through the transversalis fascia must be made near the twelfth rib, and not too far downwards. Gerota's capsule is seized with forceps and incised; the circumrenal fat then appears. The nephrocolic ligament, after certain precautions fully explained, is drawn out and its fasciculi pulled out and stretched. Then the middle part of the ligament is made into a loop which is raised out of Gerota's capsule. The next step is the suturing of the capsule under the loop; a silver wire mattress suture is afterwards passed through the transversalis fascia, also under the loop of ligament and through the fascia beyond it, and then secured, with special manœuvring. The muscle and subcutaneous fascia are closed with interrupted sutures, and the integuments with a subcutaneous suture of catgut which is entirely buried.

Such is Dr. Longyear's operation, which the reader cannot fail to admit is described by its deviser in clear language aided by yet clearer diagrams. But when we turn to the author's statistics we feel that he cannot yet convince those whose opinions and practice are different. He tabulates 56 cases on which the operation of nephrocolopexy was performed. The tables follow an instructive series of clinical reports of the same cases, and we suspect that it will be generally considered that the reports are far more valuable and reliable than the tables. This book was issued, according to the title page, in 1910. The first nephrocolopexy, it is stated in the tables, was performed in January, 1906. Supposing that the compilation of the tables was completed on January 1st, 1910, it will be seen that no less than 28 of the operations date from later than January 1st, 1908; indeed the earliest after December, 1909, was performed on April 28th, 1908. Again, 14 of the operations were done in 1907. Thus only 14 cases are left in which the after-history extends to over three years. Two years are much too short, three years hardly long enough, to test the new procedure fairly. If the nephrocolic ligament be so distinct an entity as the author assumes, it still must be liable to stretch; nor, on the other hand, are all the causes of nephrocoloptosis removed or neutralized. Dr. Longyear's clinical statistics of floating kidney are, we suspect, at variance with those of other observers. He claims to have detected, in his last 200 examinations of women consulting him for abdominal or pelvic disease, as many as 56 instances of floating kidney. In 400 previous examinations 76 were detected, and 23 in 400 still earlier; 145 floating kidneys in 1,000 patients seems a very high proportion, yet the author thinks otherwise, for he adds that "the larger percentage in the more recent series doubtless represents the difference in skill acquired in their diagnosis, as well, probably, as my increasing interest in looking for them." Yet Dr. Longyear has pleaded his cause and described his new method most ably, and the treatise deserves the consideration of all anatomists and surgeons.

SUPPURATIVE SALPINGITIS.

DR. SCHRIDDE has prepared an important treatise on suppurative inflammation of the Fallopian tube.² In the last generation tubal diseases were looked upon as curiosities, and gonorrhoea in the female was ranked as "relatively mild" in comparison with the same disorder in the male. Lawson Tait, more than any other surgeon, made us acquainted with diseases of the Fallopian tube, and womankind has in the long run profited even from his errors. Too little had been made of salpingitis; yet the great Birmingham surgeon erred, on the other hand, not in looking on it as serious, which it always is, but in deeming it incurable and insisting on the amputation of the stricken oviduct. We need not dwell on the gravity of gonorrhoeal infection, for all now know how disastrous it may prove. Dr. Schridde publishes the fruits of long

¹ *Nephrocoloptosis. A Description of the Nephrocolic Ligament and its Action in the Causation of Nephroptosis, with the Technic of the Operation of Nephrocolopexy, in which the Nephrocolic Ligament is Utilized to Immobilize both Kidney and Bowel.* By H. W. Longyear, M.D., Professor of Gynaecology and Abdominal Surgery, Detroit Post-graduate Medical School, etc. London: George Keener and Co. 1910. (Roy. 8vo, pp. 251, illustrations 88. 12s. 6d.)

² *Die eitrigen Entzündungen des Eileiters.* Histologische Untersuchungen von Dr. Herm. Schridde a. o. Professor an der Universität Freiburg in Br. Jena: Gustav Fischer, 1910. (Sup. roy. 8vo, pp. 59; plates. M. 7.)

labour in the laboratory and minute research with the microscope, his illustrations are of good quality, and, altogether, his treatise is of as high a type as several familiar, purely scientific publications on things tubal, such as Couvelaire's monograph on tubal gestation. The French authority took nothing for granted, and so proved that salpingitis is, as a rule at least, the result, not the cause, of the implantation of the ovum on the tubal mucosa, and he further demonstrated how the sac gave way, not from internal pressure, but because of softening, villi replacing muscle and fibrous tissue. Dr. Schridde likewise takes nothing for granted. He dwells on streptococcal inflammation, but devotes great attention to gonococcal infection and its consequences. The anatomy of the plicae and the changes they undergo in chronic inflammation has been made clear during the past ten years by Opitz, James Young, and others. Dr. Schridde reminds us that we may make too much of the shedding of the ciliated epithelium in salpingitis and too little of adhesion of the plicae. He admits that one fact about that type of cell has been amply demonstrated. Ciliated epithelium, though so tender in appearance, is really very tough—very vital, in fact. It is shed freely in salpingitis, but when the inflammatory processes subside it may without doubt be restored; and it then soon resumes its normal functions. Nor is this destructive inflammation the primary or necessary cause of sterility. Gonorrhoea is now admitted to be one of the commonest causes of barrenness, notwithstanding Noeggerath's over-statements. For long it has been believed by the gynaecologist that the destruction of the ciliary apparatus explains this fact. Dr. Schridde finds that the truth lies with Opitz and his more modern theory. Gonorrhoeal more than any form of salpingitis involves firm and permanent adhesions of the plicae. It is the substance, not the covering, of the mucosa that is chiefly at fault, and very slow to return to its normal state. We know that subacute attacks are extremely frequent in chronic salpingitis, and Dr. Schridde adds that the gonococcal type is all but invariably bilateral. Hence it is not surprising that the treatment of gonorrhoeal salpingitis is so unsatisfactory, its evident objective being traversed by marked histological changes which Dr. Schridde has demonstrated. He expresses the hope that therapeutics and pathology will be brought into line, that the clinician may join hands with the scientific observer, and that in consequence these suppurative forms of salpingitis may be really cured. He implies, of course, that that aim has not yet been fulfilled. Amputation of the tube is, at the best, mutilation, and even when a piece of the adjacent uterine cornu is excised as well, the results are doubtful. But Dr. Schridde evidently feels that those who object to radical surgery have not yet devised any medical or therapeutical method which will render surgical measures needless and, above all, restore the tube to its functions. The douche and prolonged rest in bed often fail. Let us think over the matter, let us take into account Dr. Schridde's very clear evidence of the true lesion in the severe types of salpingitis which he has studied, and then we may make some advance. The problem would seem to be how to apply powders or solutions to the mucosa of the tube without danger to the adjacent peritoneum.

ANATOMY.

WHEN the late Professor D. J. CUNNINGHAM was Senior Demonstrator of Anatomy in the University of Edinburgh he wrote a textbook for use in the dissecting room which was in the first instance merely a dissector's guide and nothing more. More than thirty years have elapsed since this comparatively brief, though strikingly clear, book first appeared, and previous to the lamented death of its author, it passed through four editions, becoming in 1889 a *Manual of Practical Anatomy*.³ The book was received with marked approval at the outset of its career. It has been regularly improved and brought up to date, and, as the fourth edition passed through its

author's hands, it stood unrivalled in the estimation of teachers and students alike, as a textbook of human anatomy adapted not only for use in the dissecting room but also for general reading. Now the book enters on another stage of its history. The hand which guided its destinies with such conspicuous success is still, and the preparation of another edition has been undertaken by his successor in the Chair of Anatomy in Edinburgh, Professor ARTHUR ROBINSON. In the present issue, which is described as a revision of the fourth edition, the greater part of the text remains the same. With regard to nomenclature, Professor Robinson has added a full glossary showing the difference between the terms usually adopted by teachers in this country and those of the international nomenclature, thus enabling the student to find at once for himself any term that differs. The main alteration in the revision occurs in vol. i in the description of the pelvis. Here the whole account has been rewritten. In view of the supreme importance of a precise and accurate knowledge of the anatomy of the pelvic organs this is not surprising. The old account of the dissection of the pelvis from the lateral aspect was not altogether satisfactory. The dissection was difficult to carry out, and had no real practical bearing on the surgery of the region. We are glad that Professor Robinson has replaced it by a dissection from the front, which is better calculated to show the complete anatomical and surgical relations of the parts. We have tried the dissection by carrying out Professor Robinson's instructions, and have nothing but praise for the admirably lucid way in which the various stages are described. The views obtained of the interior of the bladder and of the relations of the organ to the pelvic floor are alike admirable, and constitute a demonstration which is likely to be extremely useful to the practitioner and surgeon. The prostate, too, can be more completely examined by this new dissection, especially from the point of view in which it is approached in the suprapubic operation. Some excellent new illustrations have been introduced which will be of great help to the student. We congratulate Professor Robinson on this alteration. There is no doubt that the book will continue to hold the unrivalled position to which it is entitled.

Human Anatomy for Art Students,⁴ by Sir ALFRED D. FRIPP and Mr. RALPH THOMPSON, is the second of a series of volumes now being issued under the name of the New Art Library. The first volume deals with oil painting and drawing, and the third with modelling and sculpture; and it is intended by the editors that these three shall be followed by many others. The volumes in this series are primarily intended for the use of art students, but it is probable that they will appeal to a wider public, particularly the amateur artist and lovers of art in general, who, though they produce nothing themselves, may have a desire to examine works of art from the same point of view as the professional artist. In spite of several excellent works already available on the subject of plastic anatomy, the authors of this volume have amply justified their claim to add to the number. The difficulties of writing on a subject like human anatomy for students engaged in the study of art are obvious. A knowledge of anatomy sufficient for the studio must embrace form, attitude, and action, as well as the scientific bases of these expressions. At the same time the student must not be burdened with too many names, technicalities, and with those details which do not bear directly on surface forms. To these requirements the authors have carefully conformed, and the result is a work which can be confidently recommended as a reliable guide to the painter and modeller. They have done well, we think, in taking the skeleton (Chapter I) as the starting point, since by so doing the best possible foundation is laid for a knowledge of the topographical anatomy of the remaining parts of the body. In the second chapter a brief description is given of the various soft structures which clothe the skeleton, and then each of the four parts into which the body is divided claims a chapter. Here the various systems of which the parts are built up are clearly explained, and the student will obtain much assistance from the numerous excellent

³ *Manual of Practical Anatomy*. By the late D. J. Cunningham, M.D., D.Sc., LL.D., D.C.L., F.R.S. Vols. i and ii. Fourth edition, revised by A. Robinson, M.D., M.R.C.S. Edinburgh, Glasgow, and London: Henry Frowde, and Hodder and Stoughton. 1910. (Cr. 8vo, vol. i, pp. 634; vol. ii, pp. 632. 10s. 6d. per volume.)

⁴ *Human Anatomy for Art Students*. By Sir Alfred D. Fripp, K.C.V.O., and Ralph Thompson. With drawings by Innes Fripp, and an Appendix on Comparative Anatomy by Harry Dixon. London: Sesley and Co., Limited. 1911. (Post 8vo, pp. 328. 7s. 6d.)

illustrations freely interspersed in the text. Particularly good is the account of the anatomy of the face, and the chapter which follows it on expression and gesture. In the appendix Mr. Harry Dixon has contributed an article on comparative anatomy, in which the fundamental points of correspondence and some of the modifications for special requirements to be noted in the structure of animals are duly emphasized. The printing and general get-up of this attractive volume are alike excellent; it has a good index and a short series of photographic reproductions intended for those students who are unable to attend at a life school while studying anatomy.

M. DESCOMPS's monograph on the coeliac axis⁵ possesses both anatomical and surgical importance, for it consists of a detailed and very fully illustrated description and analysis of the origin, course, and distribution of the coeliac axis and its branches, in 50 subjects, together with abbreviated accounts of the literature bearing upon some of the points dealt with. The work is for the most part purely descriptive, though, here and there, the author draws attention to the clinical importance, from the operative point of view, of the facts which he notes, and refers to the opinions of previous writers regarding them. The anatomical interest centres mainly in the accuracy of the descriptions and illustrations, which will furnish valuable data for those who are seeking to elucidate the morphology and ontogeny of the coeliac axis and its branches. The surgical importance of the work rests on the same basis, for a careful consideration of the descriptions and the illustrations will put the operating surgeon in a position to understand and deal effectively with the peculiarities of origin, distribution, and anastomosis which are so frequently found in the association with the coeliac axis and its branches.

By using the term *Applied Anatomy*⁶ in association with the textbook he has produced, Professor DAVIS obviously intends to imply that, like many of his predecessors, he wishes to direct the reader's attention to those anatomical facts which he considers most important in association with disease, injury, and treatment. He is to be congratulated on the wide view he has taken of his subject and the carefulness and clearness of his descriptions of the anatomical structure, the physiological functions, and the pathological conditions associated with those parts of the human body with which he has thought it advisable to deal. Little has escaped his attention, but there is nothing particularly new either in the text or the illustrations, though many of the latter are original figures; the conditions and phenomena dealt with are well grouped, interestingly treated, and the proper emphasis is laid on important points. Perhaps the weakest parts of the book are the paragraphs devoted to the lymphatics, and it is somewhat remarkable that the author appears to have no knowledge of the important work on the abdominal lymphatics carried out during the last few years by Jamieson and Dobson. From the student's point of view the book may be considered to err on the point of size, and as it is obviously intended more for the use of the senior than the junior student, it might have been advisable to reduce its bulk by presuming the reader's acquaintance with many of the rudimentary facts of anatomy the descriptions of which add considerably to the text. This, however, is a matter of opinion, and there can be no doubt that, in spite of its size, the book will secure a large amount of appreciation.

PASSIVE JOY.

DR. M. MIGNARD has recently taken occasion to maintain⁷ that the numerous works which treat of melancholy, and the almost complete absence in them of any mention of pathological happiness, it might be imagined that most

mental maladies are accompanied by disagreeable sentiments. A visit to any asylum, however, he says, would quickly disabuse the visitor of this misconception. Whether this be so or not is outside the question; it is, however, incontestably true that apart altogether from the actively excited manifestations of happiness of the maniacal and other "expansive" states of beatitude are commonly exhibited by the idiot and imbecile, and also, where they might be least expected, by the senile dement and the general paralytic in his last stages. It is to this phase of morbid pleasure that he proposes to apply the striking though hardly happy term of "passive joy." Akin to the euphoria of the dying and the well-known optimism of the consumptive, this phenomenon has often excited remark. Yet, Dr. Mignard says, it has been very little investigated, and this gap he now seeks to fill. This beatitude Dr. Mignard describes as a state of calm and peaceful satisfaction with a minimum of external manifestation, shown only by a smile at once sweet, foolish, and lasting, by the optimism of the responses of the subjects and by the tone of their voices. It is unaccompanied by any intellectual excitation; on the contrary a mental torpidity appears characteristic. Sensibility, cutaneous and special, is generally diminished, and motility always. With regard to the somatic aspect, the circulation is, as a rule, slow, and the blood pressure low in all cases. The condition described by Dr. Mignard is thus a very different state from that of joy as usually conceived, with its wealth of active manifestations. Yet these two have, he maintains, a common root, a simple sensorial phenomenon—an agreeable feeling. But how is this agreeable feeling to be explained, say, in a general paralytic, exhausted by constant diarrhoea, wasted to a skeleton and seared by bedsores? Dr. Mignard's explanation is put in a nutshell by Dr. Dumas in his Preface: "Dr. Mignard thinks that in the mental sphere—that which causes joy, active or passive, the joy of the idiot or that of the poet or savant—is the suppression of every hindrance or clog, the liberty of the function, or the feeling of that liberty. The active tend to thought, to invention, to movement; the passive incline only to repose and inertia. Neither the one nor the other, however, are conscious of any obstacle, of any inhibition of their tendencies, which they realize in their plenitude; the first out of the superabundance of their energies, the second because they have only feeble or attenuated tendencies very easy of satisfaction." This theory Dr. Mignard supports by evidence drawn from personal observations described in quite superfluous clinical detail. He then proceeds to the psychological exposition of his subject; then to an investigation of the sensibility, mobility, and vegetative processes of his subjects, and in the two concluding chapters he considers passive states of satisfaction in the light of modern theories of the nature of pleasure, with a special adverse criticism of the James-Lange explanation. After contrasting the conditions described by Dr. Dumas in his work *La Tristesse et la Joie*, as exhibited by the subjects of circular insanity in the maniacal stage, the rapid flow of ideas, heightened sensibility, peripheral vaso-dilatation, cardiac acceleration, increased amplitude of respiratory movements, and, in general, the evidences of increased metabolism, with the almost exactly opposite picture presented by his (Dr. Mignard's) cases he comes to the conclusion that alongside of joy should be placed beatitude, both resulting directly from a lessened sense of inhibition, and alongside of anguish, stupor, both resulting from an increased sense of inhibition. As an explanation of pleasure, Dr. Mignard does not push this theory any further, probably agreeing with Ribot that the anatomical and physiological conditions of the genesis and transmission of pleasure are a *terra incognita*. Obviously the "peripheral" or "sensational" theory of James and Lange does not furnish a ready explanation of the phenomenon described by Dr. Mignard, any more than the various vascular, nutritive, and dynamogenic theories which have been advanced. The theory adopted by Dr. Mignard is, of course, not new; but as an extremely readable and in many parts suggestive work, describing in methodical fashion a frequently observed but little investigated phenomenon, and incidentally touching and elucidating many important points in the symptomatology of mental disease, this monograph may be cordially recommended.

⁵ *Tronc coeliaque*. By Pierre Descomps. Paris: G. Steinheil, 1910. (Imp. 8vo, pp. 205. Fr. 10.)

⁶ *Applied Anatomy*. By G. G. Davis. Philadelphia and London: J. P. Lippincott Co., 1910. (Sup. roy. 8vo, pp. 640, illus. 630. 24s.)

⁷ *La joie passive*. By Dr. M. Mignard. Preface by Professor G. Dumas, of the Sorbonne. Paris: Felix Alcan. 1909. (Cr. 8vo, pp. 288. Fr. 4.)

DISEASES OF THE VERMIFORM APPENDIX.

DR. HOWARD A. KELLY has prepared a second edition of his work on *Appendicitis and Other Diseases of the Vermiform Appendix*,⁸ which differs considerably from the first. It is a smaller work and more compact, and the author has aimed at presenting the subject in a practical manner to meet the needs of general surgeons. The book opens with an outline of the history of the disease which traces the records back to the year 1755; this is followed by a chapter on the anatomy, naked eye and microscopic, and into this chapter is brought an account of the diverticula of the intestine, chiefly of the true or Meckel's diverticulum.

The physiology of the appendix is also shortly discussed without throwing any new light on the subject. A beautifully illustrated chapter on the pathology particularly attracts attention. In only one aspect does it appear to us to be imperfect—that is, in regard to the chemical constitution of concretions; these latter are still looked upon as the result of desiccation of retained faecal particles, a view which is not in accordance with the latest observations. The morbid anatomy of the complications of the disease follows, and also that of specific inflammatory diseases, of tuberculosis, actinomycosis, and the lesions which are found in enteric and amoebic dysentery. Two-thirds of the volume are devoted to the clinical aspects of the disease.

In discussing the clinical phenomena Dr. Kelly points out very rightly that the all-important question which a practitioner has to ask himself, when first brought face to face with patients suffering from this disease, is: "Are the symptoms both general and local subsiding, are they becoming more severe, or are they apparently stationary?" On the settlement of these matters will depend the course of action. A particularly valuable chapter is that on appendicitis in childhood. The difficulties in diagnosis and the serious average type of the disease at this age are well known to every surgeon of experience. Early operation is even more important in the child than in the adult, so many cases at this age end in general peritonitis or successive abscess formation.

The operative treatment is described in great detail, both that of the simple disease and that of its various complications. The illustrations of the volume are those in the first edition with certain omissions corresponding with the smaller size of the book. We doubt whether finer illustrations are to be found in any textbook.

CHEMISTRY.

DR. JAMES PHILIP, Assistant Professor of Chemistry in the Imperial College of Science and Technology, has earned our gratitude by writing a most readable and interesting little book on *Physical Chemistry in its Bearing on Biology and Medicine*.⁹ The conceptions and methods of physical chemistry developed in recent years, are used daily more and more in attacking physiological and pathological problems, and are full of promise for the future. Students who desire to advance medical knowledge must master the underlying principles. Dr. Philip's book originated in a course of lectures delivered to biological students at the University of London. The use of mathematics has been avoided as far as possible, and the reader is assumed to have only an ordinary acquaintance with physics and chemistry. The application of physico-chemical principles are illustrated by well-chosen examples taken from the fields of biology, physiology, and medicine. The medical student, with the aid of this little book, will gain an excellent knowledge of the gas laws, of diffusion and osmosis, the ionic theory, the properties of colloids, adsorption, catalysis, and the action of enzymes, etc. Only the simplest mathematical equations are employed, and in every case the formulæ used are illustrated by concrete experimental results, which make the principles clear to the non-mathematical mind. The study of the interaction of electrolytes in solution, of inorganic catalysts, whose activity so closely

resemble that of enzymes, bring home to us the wonderful intricacy of the phenomena which pertain to watery solutions, and show that there is mystery in a drop of water no less than in a living cell. We can confidently recommend Dr. Philip's book to all those who are studying the problems of medicine; they will find it most helpful and suggestive.

The short *Manual of Practical Inorganic Chemistry*¹⁰ by Mr. A. M. KILLAS belongs to the Oxford Medical Publications, and possesses some unique features. The illustrations are all new and very graphic. The author is a lecturer on chemistry at the Middlesex Hospital Medical School, and has published an *Introduction to Medical Chemistry*, of which the present work is an extension. The table of logarithms and antilogarithms is very useful and will save the reader much trouble in looking up tables of logarithms. We should like to have seen the "phase rule" mentioned. We are sure, as the author says in his preface, the book will not only aid the student but also lighten the work of the teacher. One point to which we would direct the author's attention is that in a future edition spectrum analysis should be mentioned.

In *New Reduction Methods in Volumetric Analysis*¹¹ E. KNECHT and E. HIBBERT have collected the published facts with regard to the use of titanium chloride in analytical work, both from their own original papers and those of other chemists. Potassium permanganate and several other oxidizers have long been in wide use for the volumetric determination of reducing substances, but there has been no corresponding method generally applicable for estimating oxidizers by means of a reducer. Titanium chloride seems likely to fill the vacancy, and in this monograph directions are given for estimating many substances, both inorganic and organic by its use. Dyestuffs which form colourless compounds on reduction form a considerable number of those for which the reagent is recommended.

NOTES ON BOOKS.

THE pamphlet by Dr. T. L. LLEWELLYN on *First Aid in Collieries*¹² is intended for the assistance of ambulance men, and incidentally it suggests the economic importance to colliery owners of immediate skilled attention to what appears to be trivial injuries to workmen. Colliery proprietors are urged to interest themselves in the formation of ambulance brigades and to support them liberally, not only in their own interests but in that of the workmen. First-aid materials should be available as near the working places as possible, and the author suggests a form of first-aid box fitted with gauze, bandages, etc., which is at present in use at certain collieries. It is further advised that a receiving room should be provided near the pit shaft, furnished with hot and cold water, basins, lotions, blankets, etc., all ready for the use of the colliery surgeon. Brief but useful information is given to ambulance men on the subject of fractures, electric shocks, wounds, and burns, and there is a note on first aid in explosions.

The critic seldom appreciates the firmness and worth of his "prejudices" so fully as when he has read with enjoyment a book such as *The Religions and Philosophies of the East*,¹³ by J. M. KENNEDY, in which hardly a sentence has earned intellectual assent. "Ad majorem Neitzchii gloriam." Mr. Kennedy has given a clear and readable account successively of Brahmanism, Krishnaism, Buddhism, Mohammedanism, Judaism, and the philosophies of India, China, and Japan, and also, by reflection, of Christianity, in the light of Nietzsche's "will to power," as the measure of ethical value. He begins with the debatable Aryan hypothesis as foundation, and his "final word" is "Merely this—that the religion of men of inferior intellects must be prescribed for them by the higher order of men, and not, as is usually the case at present, vice versa."

¹⁰ London: H. Frowde, and Hodder and Stoughton. 1910. (Demy 8vo. pp. 355. 5s.)

¹¹ *New Reduction Methods in Volumetric Analysis*. A monograph by Edmund Knecht, Ph.D., M.Sc. Tech., F.I.C., and Eva Hibbert. London: Longmans, Green and Co. 1910. (Cr. 8vo. pp. 128. 3s.)

¹² *First Aid in Collieries*. By T. L. Llewellyn, M.D. Lond., B.S. The Colliery Guardian, 30, Fournival Street, Holborn. E.C. (Pp. 18. 1d.)

¹³ *The Religions and Philosophies of the East*. By J. M. Kennedy. London: T. Werner Laurie. (Pp. xi, 276. 6s.)

⁸ *Appendicitis and Other Diseases of the Vermiform Appendix*. By Howard A. Kelly, M.D. Second edition. London and Philadelphia: J. B. Lippincott Co. (Sup. roy. 8vo. pp. 530; 215 figures; 3 coloured plates. 35s.)

⁹ *Physical Chemistry: Its Bearing on Biology and Medicine*. By Dr. James C. Philip, M.A., Ph.D., D.Sc. London: E. Arnold. 1910. (Cr. 8vo. pp. 318. 7s. 6d.)