

which could not be excelled in clearness and perspicuity of style. The book is a most valuable contribution to physiology and surgery, and the author will not feel it otherwise than complimentary when we give the chief praise to that portion of his work which treats of that minute anatomy to the elucidation of which he has so successfully devoted himself, and with regard to which he has obtained a world-wide reputation. The only suggestion we could make would be that, at some future time, the book might be conveniently divided into two volumes, one on anatomy and physiology, the other on dental surgery, which latter subject, as has been remarked before, might have been much more fully entered into; but, as it is, there is no work we are acquainted with which, taken as a whole, can be compared with Mr. Tomes's well-written and instructive manual.

IV.—Cooper's Dictionary of Practical Surgery.¹

COOPER'S great work has found a worthy editor in the veteran surgeon Mr. Samuel Lane. Though the value of the book has been considerably diminished by the long interval which has elapsed between the appearance of the first and second volume, this has probably been unavoidable, from both the great labour involved and the difficulty of keeping a team of *collaborateurs* in order, but it will prove our excuse for devoting more attention to the second than the first volume, the contents of which are, of necessity, somewhat behind the day.

The last edition of the 'Dictionary,' edited by Mr. Cooper, contained 1500 closely printed pages in one volume. The present edition consists, as we have said, of two volumes, each containing over 1000 pages, of the same size and type as before. Antiquated material has been excised, so as to leave some 700 pages for new matter, which has been apportioned as follows:—249 have been allotted to articles on new subjects, 280 to rewritten articles, and the remainder to emendations of existing articles, these being conveniently placed within brackets, so that the reader can easily ascertain whether the author or the editor is writing. The names of the contributors include many of the leading surgeons and writers of the day, and

¹ *Cooper's Dictionary of Practical Surgery and Encyclopædia of Surgical Science*. New edition, brought down to the present time. By SAMUEL A. LANE, Consulting Surgeon to St. Mary's and to the Lock Hospitals; formerly Lecturer on Surgery at St. Mary's Hospital; Member of the Court of Examiners of the Royal College of Surgeons. Assisted by various eminent surgeons. In two Volumes, Vol. I, 1861; Vol. II, 1872. London.

since it would be impossible in one article to do justice to all their contributions, we propose to select one article by each as a specimen of the kind of work to be found in this veritable Encyclopædia of Surgery.

The article ANÆSTHESIA, by the late Dr. John Snow, which did not see the light until after the author's death, gives an excellent account of anæsthetics up to the time at which it was written, and the writer was able to speak with the authority of great experience respecting the administration of ether, chloroform, and amylene. Whilst giving a general preference to chloroform, Dr. Snow allowed, candidly enough, that ether possessed one important advantage in its greater safety, but he pointed out its greater difficulty of administration, owing to the lowering of temperature due to evaporation—a point which may be well borne in mind during the present, probably temporary, reaction in favour of this agent. The great point in Dr. Snow's article appears to us to be the way in which he insists that if a patient is in a condition to be submitted to an operation at all, he ought to have the advantage of anæsthesia, since the pain he would otherwise suffer would depress the system more than the inhalation. This is a point too often lost sight of.

Mr. Erichsen is well known to have paid great attention to the subject of ANEURISM, the article on which is edited by him. As a bibliographical record of the various views held at different times, Mr. Cooper's original article is unrivalled in English surgical literature, and Mr. Erichsen has made such additions on the subject of treatment by pressure, &c., as were needed. The article is now, however, of course, somewhat antiquated, and should be supplemented by the perusal of Mr. Erichsen's chapters on the same subject in his 'Science and Art of Surgery,' or Mr. Holmes' article in his 'System.' The impetus given to the treatment of intra-thoracic aneurisms by the distal ligature by Mr. Heath's successful case of double ligature, the treatment by genuflexion, the improved methods of applying galvanism, and last, but not least, the revival of the catgut ligature by Mr. Lister, have all occurred since the date of this essay. It is very instructive to read how we work in a circle, and how many modern improvements are but revivals. Take, for example, Mr. Porter's suggestion to apply a temporary metallic compressor to an exposed artery, and we have but the revival of Assalini's forceps and other metallic instruments, of which, as Scarpa remarks, "they are liable to all the inconveniences which are inseparable from the presence of hard bodies introduced and kept for several days in the bottom of a wound, especially when this is recent, in which case they cannot be retained in a proper direction without difficulty, or exactly at such a depth as will not be

attended with hurtful pressure upon the wound itself and important parts in the vicinity." The catgut ligature, again, was used by Sir Astley Cooper with perfect success in one case, without the addition of the carbolic acid now so much relied on to perfect the cure, but it failed in other cases, both in Sir Astley's and Sir P. Crompton's practices; and in the last volume of the 'St. Bartholomew's Hospital Reports' is recorded a case of fatal secondary hæmorrhage following ligature of the femoral with catgut, followed by antiseptic dressing.

The article CANCER has been considerably expanded by Dr. Handfield Jones, who has given the views of Paget, Walshe, and Rokitansky, as generally held at the date of writing, but, necessarily, does not refer to the growing belief in the local origin of cancer, as maintained by De Morgan and Arnott. The question of the prolongation of life by operation does not receive any extended notice in the article in question, and it may be well, therefore, to remind our readers of Mr. Sibley's and Mr. Marrant Baker's recent papers in the 'Medico-Chirurgical Transactions,' in which statistics are brought forward, which confirm Paget's general statement that "the average duration of life in unoperated cases is something more than two years, in operated cases is something more than twenty-eight months." Mr. Sibley, whose statistics are drawn from the records of the Middlesex Hospital, says, "in the cases of cancer of the breast, those who have been operated on lived fifty-three months, whilst those in whom the disease was allowed to run its natural course lived only thirty-two months." Mr. Baker, whose data were drawn from Sir James Paget's practice, says, "the average length of life in scirrhus cancer is forty-three months when the primary disease is not removed, and fifty-five months when the operation is performed; whilst in the case of medullary cancer the results are even more striking, being twenty months without, and forty-four months, or more than twice the time, with an operation."

CARIES has received some small additions at the hands of Mr. Spencer Smith, who has, however, omitted the long details formerly given of the methods of removing carious bone. In fact, Mr. Smith deprecates operative interference altogether, and though we should not go to this length, we agree with him in thinking surgeons are too apt to look to the local mischief alone, and to ignore constitutional causes. Many cases of caries of internal parts would doubtless heal if they were not constantly irritated by probing, and were gently stimulated by the injection of some simple lotion.

CATARACT, by Mr. White Cooper, occupies five-and-twenty pages, and might have been said to be quite out of date were it

not that ophthalmic surgery has come round in fifteen years again to some of its ancient practices. The old operation of extraction by the large corneal flap is the one form of extraction here described, and it will be remembered that this gave way to Von Gräfe's method of a limited corneal incision, followed by an iridectomy, and to the spooning out of the lens by Schüft or Waldau. Then it was found possible to extrude the lens without the spoon, and iridectomy was abandoned by some ophthalmic surgeons, who returned either to the large section or to Liebreich's incision through the sclerotic, a structure hitherto totally proscribed. In congenital cataract the introduction of the operation of "linear extraction" has been of great service by freeing the eye, at an early period, of irritating particles of lenticular matter and diminishing the number of needle operations, and thus Tyrrell's great feat of operating upon children has been perfected.

The two articles DISLOCATIONS and FRACTURES have been edited by Mr. James Lane, who has devoted to them and to his other contributions an amount of labour quite remarkable. The old and almost universally received views of Sir Astley Cooper on these subjects have of late received some rude shocks, more particularly in regard to the action of the muscles, in both classes of affections. Thus, the late Mr. Syme was strong in maintaining the non-necessity for extension in cases of fracture of the thigh, though he did not go to the extent of Jobert de Lamballe in doing without apparatus altogether; and Bigelow has done much to disabuse surgeons of the idea that muscular contraction is the great impediment to the reduction of dislocations, by showing that it is sometimes necessary to tear the hole in the capsule of the hip-joint larger, before reduction of the head of the femur can be effected.

The treatment of dislocations by manipulation rather than by forcible extension is yearly making progress, and will soon as completely supersede the old plan with the pulleys as modern anæsthetics have the bloodletting and nauseating doses of tartar emetic of bygone ages.

Hamilton's standard work on fractures and dislocations has appeared since one, at least, of Mr. Lane's articles written, and so also the work of Bigelow on the hip, to which we have referred above, and there is a lack, therefore, of reference to American views which we find in more recent authors.

The classical works of Malgaigne and R. W. Smith, of Dublin, have, however, been largely referred to in both articles, and Mr. Lane has gone carefully through each of the numerous forms of fracture and dislocation described by Cooper, and has added such illustrative cases and new methods as to increase

materially the value of the articles, which each occupy nearly one hundred pages.

The article on DISEASES OF THE EAR has received a few additions and emendations from the pen of the late Mr. G. Pilcher, but it cannot be said to represent either the most modern views or practice in this department of surgery.

The experience of the Crimean war has been fully brought to bear by Mr. Blenkins on the old Peninsular article on GUNSHOT WOUNDS, and full reference is made to the various professional writers of that period, and also to the manuscript Jacksonian Essay on the subject, by the late Alfred Poland. The abolition of venesection, the employment of anæsthetics, and the preference for primary over secondary amputations, which were established among army surgeons in 1854—56, have been fully borne out by the experiences of the great American war and the more recent Continental struggles. The records of the American civil war, which are the most elaborate which have ever been published, have, we believe, settled in the affirmative another vexed question, the propriety of closing all chest wounds at once, even if it should subsequently become necessary to open the wound or perform paracentesis for collections of fluid. The Crimean preference for excision over amputation in the case of the upper extremity has likewise been maintained everywhere, but the most modern experience in the Franco-Prussian war has condemned excision of the knee for gunshot injuries, and has not given a more favorable result as regards excision of the head of the femur than was experienced in the Crimean or American wars, when the deaths averaged 90 per cent.

HÆMORRHAGIC DIATHESIS is one of a series of articles on the blood, contributed to the present edition of the 'Dictionary,' by the late Mr. Henry Ansell, of which the editor makes prominent mention in his preface to the first volume. We have selected the article on Hæmorrhagic Diathesis as a specimen of the author, because it is obviously more suited to a surgical dictionary than many others of the series, which embraces such subjects as *Cholæmia*, *Hydræmia*, *Hyperinosis*, *Hypinosis*, *Heterochymensis*, &c., but we cannot express a high opinion of his labours. The article on Hæmorrhagic Diathesis is founded principally upon a paper by Mr. Lane, published in 1840, and evinces little research or personal experience. The lack of these latter qualities is evident also in the other articles from the same pen, Mr. Ansell having produced a series of extracts from the works of others rather than a well-digested *résumé* of the matter in hand, supported by his own investigations.

INJURIES OF THE HEAD have been entrusted to Mr. John Adams, who has brought the experience of many years, while

surgeon to the London Hospital, to bear upon this interesting subject. In a chapter on Injuries of the Scalp, which he has added to Cooper's article, Mr. Adams recommends the use of sutures in scalp wounds, and denies that their presence tends to produce erysipelas. His remarks, too, on the general treatment of these cases, and especially the avoidance of exposure to cold winds, are most judicious, and the lessons of long experience. Mr. Adams agrees with Mr. Hewett in believing that Pott exaggerated the frequency and pathological importance of his well-known "puffy tumour" as indicative of suppuration on the dura mater, for it often happens that the scalp has sloughed before matter has formed beneath the calvaria.

Mr. Adams agrees with most modern surgeons in believing that fracture by *contre-coup* is extremely rare, if, indeed, it ever occurs; and the cases of fracture of the base of the skull resulting from falls on the vertex, which were formerly ascribed to *contre-coup*, are clearly the results of the direct force applied to the base of the skull by the trunk through the vertebral column, and have nothing in common with the laceration of the brain from indirect violence, which undoubtedly occurs, and, as well pointed out by Hilton, especially at those points where the brain is not furnished with the water-cushion formed by the subarachnoid fluid. The fluid which escapes from the ear or into the pharynx, in cases of fracture of the temporal bone, is undoubtedly, in the majority of cases, cerebro-spinal fluid, though a case has been recorded by Holmes, in the 'Pathological Society's Transactions,' in which the fluid was solely from the internal ear. In the treatment of these cases there has been a reaction from over-active treatment to doing nothing, and we are glad, therefore, to note that Mr. Adams recommends the administration of calomel, so as to affect the system as a prophylactic against the meningitis which comes on but too surely in the majority of these cases if left untreated.

The remarks on concussion of the brain are judicious and to the point, though we should be ourselves inclined to lay more stress than is done on the after-care required by patients who have suffered from concussion of either brain or spinal cord. There are unquestionably remote changes in the nervous centres which can be best avoided by the greatest quietude and absolute rest, and the general prescription to go to the sea-side for a week or two to get strong is much too vague, and not seldom leads to disastrous consequences. As a symptom of compression of the brain, Mr. Adams rightly lays great stress upon paralysis as being most constant. He recommends operative interference when it is present, and gives cases supporting the practice of trephining when no depression of the skull exists, for the evacua-

tion of blood or matter. To puncture the brain itself for the evacuation of matter is, doubtless, a bold practice, but one which offers the sole chance of saving a patient's life in some circumstances, and a recent case in St. Bartholomew's Hospital would show it not to be so dangerous as supposed. With the present comparative rarity of trephining the occurrence of hernia cerebri has become almost unknown; but Mr. Adams believes it to be generally connected with an abscess and some disintegration of brain-substance, and recommends shaving off the protruding mass, and the subsequent application of pressure, when, if recovery ensues, he believes an increased quantity of fluid in the ventricle restores the equilibrium of pressure.

Mr. Acton's article on IMPOTENCE is an epitome of the views put forth at greater length in his well-known work on the reproductive organs. His remarks on the moral and medical treatment of the various forms of impotence are worthy of all attention, and on the question of marriage he makes the following suggestive observations:

"The writer's experience is that, as a general rule, there is little need to dissuade those from marrying who ought not to do so. Our task is rather in the other direction—to encourage those nervous hypochondriacal people who labour under the delusion that they are unfit to undertake the rational duties of husbands and fathers."

The elaborate article on INFLAMMATION by Dr. Druitt is one of the most valuable *résumés* of the entire subject we are acquainted with. In the space of 100 pages Dr. Druitt has been able to display a very profound acquaintance with the literature of his subject, and to discuss all the theories from time to time held by men of authority, while towards the conclusion he has examined the several modes of treatment proposed, giving his own views for and against them. The first section is devoted to a definition of inflammation, which presented great difficulties, and to the question whether inflammation should be regarded as a disease, which Dr. Druitt answers in the affirmative. An analysis of the local and constitutional symptoms of inflammation follows next, and then, in Section 4, we have a general account of the progress and results of inflammation. To this succeeds an exhaustive description of the minute anatomy of inflamed parts, taking the several tissues and membranes in order. The causes of inflammation are discussed at length, which their variety fully justifies, and this section leads naturally to the next equally lengthy one, in which the varieties of inflammation are considered, and a classification is attempted. Lastly, we come to the most interesting portion of the essay, viz. a history of the various theories of inflammation, with the treatment adopted from early days down to the present

time. For this purpose Dr. Druitt has made a rough division of the surgical doctrines of inflammation into seven classes :

“ The first is that of ancient surgery, more particularly as represented by Galen, whose doctrines, classification, and very words were copied by succeeding writers, and only became obsolete in the time of Cullen and Hunter. The second began with the beginning of modern science in the seventeenth century, and adopting the vitalistic or pneumo-pathological basis, continued down, through Cullen and Hunter, to Cooper, Abernethy, and the great surgeons of the last generation. A third may comprise the early microscopic school, by which the capillaries were chiefly studied. A fourth coincides with the development of the cell-doctrine. A fifth includes the later ideas of the activity and power of protoplasm or ‘germinal matter,’ independently of the formation or function of ‘cells,’ formally so called. A sixth will treat of chemical theories. A seventh of the now popular neuro-pathology.”

In the section on treatment Dr. Druitt has discussed all the various systems of treatment with fairness and impartiality, and the whole is well worth perusal. Beginning with preventive treatment, including rest, narcotics, and the antiseptic treatment of Lister, he passes on to expectant treatment, which is summarily dismissed in favour of curative treatment. The remedies for inflammation are subdivided into those which (1) diminish the quantity or the velocity of the blood or its heat ; (2) purify it by acting on the excretory organs ; (3) allay nervous irritation ; (4) support the strength ; (5) act specifically in a way we cannot explain ; (6) counter-irritants and neurotics. Space will not allow of our following the author through these most interesting pages, which form the conclusion of his able article ; but we will venture to place before our readers his own summary in the form of twenty-four general conclusions, which are as follows :

“ 1. Inflammation cannot be defined as to its essence, so that the best plan is to define it by its accidents as ‘a diseased process attended with hyperæmia and exudation,’ as we have said above, or with pain, heat, redness, and swelling.

“ 2. There are certain natural processes which resemble it in some respects, as erection, ovulation, menstruation, lactation, salivation, and the action of the intestinal mucous membrane during digestion.

“ 3. There are certain morbid processes into which inflammation passes by insensible gradations—to wit, neuralgia, hypertrophy, tumours, benign and malignant, mucous flux, and hyperæmia.

“ 4. But as neuralgia, hypertrophy, tumours, fluxes, and hyperæmia may (like the best examples of repair) occur without inflammatory symptoms, so it is clear that the term ‘inflammatory’ applies

to the manner in which these changes take place, that is, if they take place in a rapid, violent, and painful manner (W. Moxon, 'Analytical Pathology,' 'Med. Times and Gaz.,' 1870, vol. ii, p. 441). The diagnosis of inflammation is chiefly founded on hyperæmia, heat, exudation, and progressive change.

"5. The superaddition of inflammatory characters to morbid processes brings into play a new order of phenomena, requiring special treatment.

"6. The essential seats of inflammation are tissues in their minute structure. The vessels, nerves, and lymphatics are instruments, but not essential agents. Yet some inflammations are diseases *in a part* rather than *of* it, beginning with capillary embolism or afflux of morbid blood-elements (Beale), or with the intrusion of morbid leucocytes.

"7. Theories of inflammation must be comprehensive, not exclusive. All theories heretofore in vogue have some partial truth, but no one can be accepted as a view of the whole truth. The doctrine of the state of the blood, of humours, of the influence of the nervous system, of the action of vessels, the action of 'cells,' of exudations, of embolism, and of leucocytes, are not incompatible, but may be held as so many parts of a harmonious system.

"8. Inflammation of any part must be considered an expression of irritation or wronged vitality, of defective resistance to causes disturbing the processes of nutrition, the liability increasing in proportion to the weakness and sensibility. Injury to living tissue 'renders it incapable,' as Goodfellow has well expressed it, 'of exercising its proper affinities'—of growing in harmony with the organism of which it forms a part. The same rule holds good, as Virchow has shown, with regard to vegetables as to animals.

"9. It is the characteristic of high health and vigorous life that injuries are healed without nerve-irritation and inflammation, and that morbid states of the blood, from improper food, cold, or the like, are got rid of by the normal processes of oxydation and excretion.

"10. It is under conditions of weak health and lowered vitality that fevers and inflammations are most likely to occur.

"11. There is nothing benevolent nor conservative in fever and inflammation. They are grievous wastes of force and substance, and imply a prodigal production of the lowest amœboid forms of organization.

"12. It is a pernicious doctrine to hold that 'Nature, feeling herself injured, sets up inflammation to restore the damage or recover the health.' If there be damage, it is the duty of the practitioner to remove causes of irritation and to quiet the nerves, till natural processes of oxydation and elimination shall have got rid of any material cause, and till an injured or fatigued organ can recover its nutrition.

"13. The best result of inflammation is that it sometimes produces a new organ of oxydation or elimination, as in gout, mucous flux, and critical abscess. But as these may risk life and health, it

is the surgeon's duty to render them needless by the means just mentioned.

"14. Of the causes of inflammation some reach the part from without, as wounds; others through the blood. In the latter case the blood is sometimes the mere vehicle, as of cantharidine to the kidneys. But the real blood diseases are those produced by some modification of that fluid, whether spontaneous or resulting from chemical substances acting as ferments. (6 supra.)

"15. This last-mentioned class of cases constitute the 'fevers' of which local inflammations are products and symptoms. In a true 'local' and traumatic inflammation the feverishness is secondary and symptomatic.

"16. But in all great idiopathic inflammations, and in the cases of injuries in which septicæmia has occurred, the local symptoms are as secondary as are the lesions in typhoid or scarlatina.

"17. For the great idiopathic inflammations, just as for acute rheumatism, we ought to restore the term 'fever.' Just as we speak of rheumatic fever, so we ought to speak of gouty, erysipelalous, pneumonic, pleuritic, and peritoneal fevers. So the greatest physicians always did—Hippocrates, Sydenham, Hoffmann, Hexham, and Fordyce. To speak of erysipelas, gout, or pneumonia, as *local* inflammations is absurd. Pathology in this instance must *recueillir pour mieux sauter*.

"18. Just so inflammation, tumours, malignant and other, hypertrophy, 'tubercle,' elephantiasis arabum, and the like, ought to be taken as members of one series.

"19. We cannot attempt to give, even in the most general form, the treatment adapted to each kind of inflammation. For, in truth, that of every case must be adapted to the cause, the degree, the constitutional peculiarity, the organ or tissue involved, and the stage. Remedies that would be useful in an early stage may be useless or pernicious afterwards.

"20. It is preventive treatment which should be the surgeon's great study. In all cases of injury or threatened inflammation, by rest; if there be a wound, by providing against putrefaction and germs: in many cases after exhaustion and exposure, by a moderate use of stimulants, with a warm bath and nutritious food. In cases of wound or parturition, the first impressions on the nervous system should be neutralised by opiates. In cases where excess of food and a gorged condition of the alimentary canal exist, an incipient case may often be cut short by purgatives. In malarious cases, quinine; in gout, colchicum seems to have the power of suppressing that nervous condition which permits of local mischief; and it is for 'specifics' of this kind, as preventives, that the practical surgeon should pray.

"21. If an inflammation be already lit up, a different order of remedies may be requisite, just as fire-engines must be had to check a conflagration the first spark of which might have been put out by a housemaid's mop. Bleeding should be practised if the condition of the *patient* seem to render it expedient. If not, a labouring

organ may be freely reached. Purgative, saline, and opiate remedies, and wine, may be added according to the needs of each case.

"22. In the fully-established inflammation, when the effusion or other result has taken place, the surgeon will think of giving vent to discharge, of supporting the strength, and repairing the mischief which he has not been able to prevent. There is nothing unreasonable in believing that a bath and brandy-and-water may prevent an attack, which may require bleeding if fully developed, and wine at its close.

"23. In the reparation of injuries, and in diseases whose course is known and regular, the treatment must be chiefly expectant.

"24. In every instance the surgeon at the bedside will do well to divest himself of all abstract and metaphysical notions, and to see before him, not a 'case,' but a brother, a being of flesh and blood, whose body and soul require to be dealt with by moral and material agents, according to the needs of each."

Mr. Maunder has rewritten the article on **INTESTINAL OBSTRUCTION**, and given the researches of Brinton, Gay, and others, together with some considerable experience of his own. He rightly insists upon the free administration of opium to allay peristalsis, and speaks guardedly of any operative measures. We find no mention of the injection of olive oil, which we have known act very successfully in some cases of obstruction, nor any reference to the use of belladonna to relieve local pain and stimulate the bowel to contract.

The articles **DISEASES OF JOINTS** and **EXCISION OF JOINTS** have been carefully emendated by Mr. Thomas Wakley, who has made copious additions to them, consisting principally of extracts from the works of Brodie, Erichsen, Coulson, Barwell, and others. By this means, Cooper's originally somewhat scanty articles have been brought well up to the practice of the day, some subjects not originally treated of, *e.g.* hysterical affections of joints, being added. In the article on **Excision** Mr. Wakley has given an excellent *résumé* of the history of the operations on the several joints, and has supplied some valuable statistics as to the results obtained, having himself had considerable experience in this department of surgery.

Sir Duncan Gibb has contributed a short article on the **LARYNGOSCOPE**, an instrument the practical utility of which he did much to popularise in this country.

The **SURGICAL DISEASES OF THE LARYNX** are from the pen of Dr. Macleod, who has also undertaken the articles on the **Pharynx** and **Trachea**, **Tonsils**, &c., and to whose article on **Wounds** we shall have occasion to refer further on.

LITHOTOMY and **LITHOTRITY** are written by the veteran William Coulson, who has in these articles brought to bear a long experience and a matured and calm judgment, which

render the opinions expressed especially valuable. The article on Lithotrity is entirely new, for in the forty years which have elapsed since Cooper wrote the whole subject has been revolutionised by Civiale, Brodie, and their successors. Mr. Coulson is not a blind advocate for lithotrity in every case, but holds the scales very justly between the two operations, appreciating fairly the advantages and disadvantages of each. For large, hard stones he would prefer lithotomy, nor does he hesitate to recommend recourse to lithotomy after lithotrity has been commenced, when symptoms of great irritation arise and the patient's health is giving way under repeated operations. The lateral operation, with limited incision, is the form of lithotomy preferred by Mr. Coulson, who, in the operation of lithotrity, uses the instrument and follows the method of Civiale. The use of injections after the operation of lithotrity is recommended by Mr. Coulson, who thinks them of great advantage.

Mr. James Lane has contributed a short article on LITHOTOMY IN THE FEMALE, and has especially called attention to the valuable vesico-vaginal operation practised by Mr. Baker Brown, himself, and other surgeons, with the greatest success.

The article on DISEASES OF THE MAMMA was entrusted to the late Mr. Alexander Ure, who has made a few additions to it, and has supplied the sections on Cysts, True Hydatid Tumour (in contradistinction to the term employed by Sir A. Cooper for all forms of cyst), Chronic Mammary Tumour, &c.

NEURALGIA is hardly a subject for a surgical dictionary, but Cooper's original article has been edited and added to by Mr. Charles Hunter, who has for some years paid attention to the subject, especially in connection with the subcutaneous injection of remedies. Mr. Hunter has also contributed the article on NEUROMA.

The article on the OPHTHALMOSCOPE is one of a series of able papers on ophthalmic surgery by Mr. Bader. In drawing it up the author acknowledges his indebtedness to Zander's work on the subject, translated by Mr. R. B. Carter, and then sketches the various forms of instrument invented, their uses, and respective advantages. The article VISION, also by Mr. Bader, is well worth perusal by all practising surgeons, explaining, as it does, briefly and intelligibly, the modern views and researches on abnormalities of vision and their correction by appropriate glasses. Few men, not professed ophthalmologists, have the courage to face Donders' great work, translated for the New Sydenham Society, bristling, as it does, with mathematical formulæ; but they will find here, in a short compass, all that it concerns them to know of hypermetropia, myopia, astigmatism,

&c., with plain directions for choosing lenses to suit each variety of sight.

OVARIOTOMY could not have been placed in better hands than those of Mr. Spencer Wells, who, though at the time the article was written he could speak of no fewer than 200 cases, has, as is well known, recently brought the statistics of 500 cases of his own before the Royal Medical and Chirurgical Society. Mr. Wells traces the history of ovariotomy from Mr. Dowell's first case, in 1808, to the present time, and justly claims to have himself done much to bring the operation into repute. Mr. Wells has unquestionably had the largest experience of ovariotomy and the greatest amount of success of any living surgeon, and he would confer the greatest benefit on fellow-labourers in the same field if he would publish all the cases in which he has made exploratory incisions and has failed to complete ovariotomy, either from errors in diagnosis or other cause. In this article, and also in his recently published work, Mr. Wells lays down excellent rules for the diagnosis of ovarian tumours; but, as all practical ovariotomists know too well, all these rules are open to exceptions which render them nugatory, and the fact is, as was broadly laid down by the late Mr. Baker Brown (whose labours deserve every recognition), that it is impossible to be perfectly certain as to the nature and attachments of any abdominal tumour until the operator's hand is within the abdominal cavity. Mr. Wells gives, in this essay and in his practice, the preference to the clamp for the treatment of the pedicle. He appears to be a little prejudiced against other methods of treatment, which is, perhaps, natural; but we cannot see on what grounds he can claim more perfect and complete recoveries after the use of the clamp than after one or other of the intra-peritoneal methods of treating the pedicle. We have seen not a little trouble with the stump of the pedicle, both immediately and for months after the operation, whilst the recovery in numerous cases of "tied and dropped" pedicle has been rapid and complete.

Mr. Sercombe contributes a short paper on FISSURES OF THE PALATE, in which he details the operations of Fergusson and Pollock for the closure of split palate by operation, and enters more at length into his own special department, and the means for closing mechanically fissures in both the hard and soft palate. However successful surgeons may be in closing a fissure of the palate, it is undoubted that the improvement of the voice is often slight and unsatisfactory. This arises, we believe, from the shortness of the palate, by which the nasal and oral cavities are not properly separated during articulation, and if the dentist can overcome this difficulty by the adaptation of an artificial palate the result will probably be more satisfactory.

PYÆMIA is contributed by Mr. Henry Lee, who has also written the article on "Diseases of the Veins." Mr. Lee takes a somewhat mechanical view of pyæmia, believing that a distinct *materies morbi* finds its way into the veins, where, if coagulation is not induced, it necessarily enters the systemic circulation, leading to decomposition and secondary deposits in various organs of the body. But even if coagulation does occur, there is no security for the patient, for the clot may break down or be mechanically carried on, producing the well-known effects of embolism. A good sketch of the morbid appearances found after death, and of the symptoms seen during life in a well-marked case of pyæmia, is given; and, in speaking of treatment, Mr. Lee proposes to arrest phlebitis which might be creeping towards the trunk and thus threatening to produce pyæmia, by applying two acupressure needles above the seat of mischief, and dividing the vein between, so as to produce adhesive inflammation at a healthy spot, and thus seal up the vessel.

SCURVY is a short article contributed by Mr. Harry Leach, who is well known to have devoted much attention to the subject. The utility of lemon juice and fresh vegetables in preventing and curing scurvy is vigorously supported by the author.

The original and learned article on SURGERY by Cooper has had tacked on to it a very imperfect sketch of the "Progress of Surgery," by Mr. Ernest Hart, of which the concluding sentence will give the best idea:—"I will conclude by asking indulgence for this rapid summary, which the necessity for extreme condensation (amongst other reasons) has, in my hands, rendered even more imperfect than it might otherwise have been."

DISEASES OF THE SKIN are treated of by Mr. Erasmus Wilson, who devotes a large portion of the article to the enumeration of the varieties of skin disorders described by various authors. Thus no fewer than twenty-nine varieties of eczema are described! Dermatologists appear to be rather pedantic in their choice of terms, if one may judge from the following under the head of Erythema:

"The hyperæmia following a blow is termed erythema ab ictu, that occasioned by riding on horseback is erythema in equitantibus, and that which results from the pressure of the weight of the body in bed-ridden persons is the erythema ab decubitu, or erythema paratrimma; a scorch by the fire is erythema ab igne; and the hyperæmia following exposure to cold erythema ab gelu."

Mr. Wilson is a firm believer in the constitutional origin of local skin diseases, and, while not neglecting local remedies,

directs his attention especially to constitutional treatment. His long experience has shown him that arsenic is a most useful remedy, and that the drug sometimes requires to be pushed beyond the regulation doses if a cure is to be effected.

Mr. William Adams has contributed the articles CURVATURE OF SPINE and TALIPES, in the latter of which is included an account of all the congenital and non-congenital distortions of the feet. Mr. Adams is well known as a leading supporter of what is commonly known as "orthopædic surgery," and these articles give a good *résumé* of that practice, which consists mainly in the use of mechanical apparatus and the division of contracted tendons. Whether a more physiological view of the nature and treatment of these affections might not be followed in some examples of deformity by better results than are now obtained, it is not for us now to discuss.

Mr. Gascoyen, in addition to several articles relating to diseases of the bones, has edited the article on DISEASES OF THE TESTICLE. In this due reference is made to the researches of Lawrence and Syme on hernia testis, and the labours of Curling, Gross, and other writers on the subject. Many new and useful sections have been added to the original article, which now fully represents the knowledge of the day.

TETANUS has been rewritten by the late Mr. Poland, whose industry and research on any subject he took up are unrivalled. The article is, however, neither so complete nor so modern as the same author's essay on the subject, in Holmes's 'System of Surgery,' and is, in particular, wanting in reference to more recent researches as to pathological changes in the spinal cord.

Mr. George Lewis Cooper has edited the article, DISEASES OF THE TONGUE, to which he has added a good account of the modern operations for removal of the whole or part of that organ; and has also contributed a biography of his uncle, Samuel Cooper, which is placed at the beginning of the second volume of the Dictionary. From this we learn of Cooper's indomitable industry dating from early life, of his military experiences, his literary successes and temporary hospital failures, and, lastly, of his career at University College, where he probably never was estimated as highly as he deserved, from being brought into close contrast with the more brilliant Liston, and also from the fact that he clung to office longer than his age warranted. Cooper's 'First Lines of Surgery' and his 'Surgical Dictionary' are the best monuments of his fame.

Dr. Robert Barnes has contributed a short article on 'TRANSFUSION,' of which he speaks hopefully, believing that it will gradually come more and more into employment and esteem, and

has also edited the various articles relating to the uterus. The article *INVERSION OF UTERUS* is rewritten, and is replete with references to valuable cases, but that on *PROLAPSUS OF UTERUS* is the original one of Cooper, with merely an addendum by Dr. Barnes, who remarks—"The article by Cooper is so excellent that I have feared to mar it by interpolation. I simply add such information as subsequent progress demands."

TUMOUR has been undertaken by Mr. John Birkett, who has contented himself with making some additions to Cooper's original article. Now, if there is one article in the whole work which of necessity demanded entire rewriting it is this, since the whole subject has undergone such alterations at the hands of Paget, Virchow, Billroth, Broca, and others, that to quote Abernethy, Carswell, and Warren, in the present day is hardly fair either to them or to the reader. Mr. Birkett quotes Broca's classification of tumours with approval, but does not attempt to follow it, and is content with inserting brief notices of the myeloid, recurrent fibroid, and myxomatous tumours. He subsequently gives another classification of tumours, presumably his own, which is "based upon their elementary composition, and has been arranged especially with regard to facilitating their diagnosis at the bedside;" and yet a third quoted from Billroth; but the article is unsatisfactory as a whole, from being simply a piece of patchwork.

ULCERS AND WOUNDS (besides several articles earlier in the work) have been entrusted to Dr. Macleod, of Glasgow, who has made many excellent additions to both. The varieties of ulcers are well described, and good rules for their treatment are laid down. In the article on wounds the various modes of healing as laid down by Paget are given, and an excellent sketch of the history of surgery in the treatment of wounds is appended. Perhaps the most interesting portion is the sketch of modern practice in relation to wounds, which Dr. Macleod divides into—1. Methods of treatment which aim at excluding the air altogether. 2. Plans of disinfecting or preventing putrefaction. 3. The thorough drainage of wounds. 4. The use of irrigation. 5. The employment of certain gases. Speaking of Mr. Lister's antiseptic dressing, Dr. Macleod writes, "That very much can be done by the careful development of this system of practice, and that much more may be expected of it than has even yet been accomplished, no one who has read Mr. Lister's able papers can doubt." We should have been glad, however, to have had Dr. Macleod's own experience on the subject, and some reference to what he had personally witnessed in the wards of the Glasgow infirmary.

Sir Henry Thompson has revised the articles relating to the

URINARY ORGANS, including the PROSTATE, and he has so completely exhausted these subjects in his well-known treatises upon them, that it would be vain to look for any new information in the articles before us. They are, in fact, excellent epitomes of the author's larger works, and may be, therefore, recommended to those who have neither time nor opportunity to devote to literary labour. We are a little surprised to find the operation of tapping the bladder above the pubes in cases of retention spoken of as "easily performed and without danger," in cases in which the bladder can be felt above the pubes; nor do we agree with the dictum "no doubt this is the best situation in which to retain an instrument afterwards." We are not aware of any published cases proving tapping above the pubes to be superior to the operation *per rectum*, and have known disastrous results follow the operation in the most skilful hands.

A short article by the late Mr. Weedon Cooke on the surgical uses of preparations of ZINC concludes the work.

We have purposely left all reference to the labours of Mr. Samuel Lane, the editor of the 'Dictionary,' to the last, and have now to congratulate him on the satisfactory completion of his work. The book would, doubtless, have been of more uniform value had the two volumes appeared more nearly together, but only those who have had to drive a team of medical writers knows what the difficulties in the way of punctual performance of promises are. Mr. Lane's own labours must have been very great, since the revision of a multitude of small details has fallen on his shoulders. He has not, however, shrunk from undertaking several lengthy articles, all of which show evidence of a thorough acquaintance with the literature as well as the practice of surgery, and give proofs if any were required of Mr. Lane's fitness for the editorial office to which he was appointed. From among Mr. Lane's articles we select that on VENEREAL DISEASE for comment as being of general interest, and on a subject upon which that gentleman is especially entitled to speak with authority.

The earlier part of the article is a reproduction of Cooper's historical summary, together with a few interpolations by the editor. In this we have in detail the views both as regards pathology and treatment of Hunter, Carmichael, Wallace, the anti-mercurialists Rose and Fergusson, &c. This, though interesting, will, we fear, tend to confuse those who plunge into the article without any distinct ideas as to modern teaching; and for students, therefore, we should recommend the perusal of the latter half of the article first. This latter portion consists of an elaborate, candid, and fair statement of the views of modern writers on the nature and treatment of venereal disease.

Mr. Lane is an uncompromising "unicist," and has no belief in the existence of two poisons, the one producing the simple chancrous sore and the other the true infecting chancre.

"We of course admit," he says, "that the separation of venereal ulcers into two classes, the indurated or infecting, and the unindurated or non-infecting sore is within certain limits of great practical value. We admit freely that the indurated sore will, as a rule, be followed by constitutional infection, and that the unindurated sore will, as a rule, produce no such results. But both rules, the latter especially, have occasional exceptions, and we believe it to be impossible to predict *with certainty* of any given sore, however typical in appearance, that it will or will not be followed by secondary infection. There is no *certain* proof of the infecting nature of the sore, but the fact of infection itself."

Again, upon the important question of infection of the system by a soft sore, Mr. Lane says :

"We are certain that sores that have never shown induration at any period of their progress, and which we have ourselves carefully watched throughout, have, nevertheless, been followed at the usual period by a well-marked secondary eruption."

We need hardly say that Mr. Lane has no faith in the so-called "*chancre mixte*" which is put up to explain the undoubted occurrence of constitutional symptoms after a soft sore, and which he speaks of derisively as "this double-barrelled sore."

The section on modern treatment is full and satisfactory. Mr. Lane speaks in no uncertain tone of the use of mercury given with judgment, and thinks it of secondary importance by what means it is introduced into the system. He regards iodide of potassium as rather antagonistic to mercury, and therefore characterises the common practice of giving the two drugs in combination as "blowing hot and cold." Sections on syphilis affecting internal organs taken principally from Dr. Wilks' essay; on 'Mr. Hutchinson's views on inherited syphilis;' and on syphilisation, quoted principally from Mr. James Lane's and Mr. Gascoyen's paper in the 'Medico-Chirurgical Transactions,' are followed by a transcription of the greater part of the valuable report of the Government committee on venereal diseases published in 1867.

We have thus endeavoured to do justice, so far as the space at our disposal will permit, to the labours of the editor and staff of *collaborateurs* of the last edition of 'Cooper's Surgical Dictionary.' We recommend the work to the notice of all those students of surgery who are not content to accept the last new view as true because it is new, but desire to know something of the history of their art, and to form their opinions upon those of the leading thinkers of the past and present generation.