Technical and Bibliographic Notes / Notes techniques et bibliographiques

Canadiana.org has attempted to obtain the best copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

Canadiana.org a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- ☐ Coloured covers / Couverture de couleur
- ☐ Covers damaged / Couverture endommagée
- ☐ Covers restored and/or laminated / Couverture restaurée et/ou pelliculée
- ☐ Cover title missing / Le titre de couverture manque
- ☐ Coloured maps / Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black) / Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations / Planches et/ou illustrations en couleur
- ☐ Bound with other material / Relié avec d'autres documents
- ☐ Only edition available / Seule édition disponible
- ☐ Tight binding may cause shadows or distortion along interior margin / La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure.

- ☐ Coloured pages / Pages de couleur
- ☐ Pages damaged / Pages endommagées
- ☐ Pages restored and/or laminated / Pages restaurées et/ou pelliculées
- ☑ Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
- ☐ Pages detached / Pages détachées
- ☑ Showthrough / Transparence
- ☑ Quality of print varies / Qualité inégale de l'impression
- ☐ Includes supplementary materials / Comprend du matériel supplémentaire
- ☐ Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from scanning / Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été numérisées.

☑ Additional comments / Commentaires supplémentaires: Continuous pagination.

THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE, CRITICISM AND NEWS.

The LANCET has the Largest Circulation of any Medical Journal in Canada.

TORONTO, NOVEMBER, 1895.

Original Communications.

DRIFTING, WHO, HOW, WHITHER?*

BY LEARTUS CONNOR, A.M., M.D., DETROIT, MICHIGAN.

The study of Medical Sociology exhibits a drifting in the matter of consultations. Rightly considered, the medical consultation is the "holy of holies" of associated work. He only can enter it aright, who, in the words of the Great Teacher, "hath clean hands and a pure heart; who hath not lifted up his soul unto vanity, nor sworn deceitfully."

Its history shows that the medical profession has ever taken the greatest interest in the qualifications of those seeking its fellowship. Not all calling themselves "doctors" have been admitted within its fold and many have been ejected therefrom, who have entered by ways other than the strait gate.

Because of its jealousy of the proper character of its membership, the laity have termed the profession intolerant, bigoted, and narrow—so little has the world ever comprehended the sacred trust assumed by the physician.

The medical profession holds as sacred all knowledge acquired in the performance of its duties; it suffers in silence that the sick may recover health; it endures misrepresentation and obloquy because its nature and purpose are exalted above popular comprehension; it must be clean in thought, pure in life, and unselfish in work, if it would most effectually accomplish its purpose. Hence the necessity of ever keeping its ranks free from those lacking these qualities.

Differing standards of admission to the medical profession have prevailed in succeeding ages, different countries, peoples, and civilizations; but each has had some standard, for both admitting and expelling members. No physician was ever burned at the stake by the medical profession, for holding diverse views on matters of medical theory or practice, but many have been ostracised and regarded with contempt.

The standards of professional association are partially written, but more generally unwritten. Our written standard was adopted in 1847, but our unwritten one traces its origin to the first medical man, being inherent in the nature of the medical profession—a part of the medical training. The son absorbed from his father, or the student from his preceptor, medical knowledge, morals, and etiquette, and transmitted the same to his sons or students. Thus, from hand to hand, mouth to ear, hand to eye, the real standard by which we accept or reject professional fellowship, has come to us as a direct personal testament from generations far antedating the earliest historic record.

The Roman Catholic Church regards the medical profession as *the* profession, all else but fragments, and in this respect it concurs with the estimate of itself by the profession. It is a gigantic tree whose germ sprouted when human beings first needed relief from suffering, whose leaves have been for the healing of the nations, and under whose sheltering boughs the worn and distressed are protected from the scorching heat of life's physical diseases. The question before us is, what shall be the relations of the medical profession to the "sects" and "isms" as homœopathy, eclecticism, etc.? The code of ethics adopted by the American Medical Profession in 1847 makes the specific statement: that all professional association with members of these sects is derogatory to the medical profession. To "aid or abet" in the education of the believers in these sectarian views is also regarded with similar disfavor. For now, many years, some have doubted whether ostracism was the wisest method of dealing with these sects. The number of doubters has, from year to year, so multiplied, that the student of medical sociology notes the change with increasing interest. He is led to inquire whether this drifting, starting in city and country, upon the mountains and in the valleys

* A paper read before the American Academy of Medicine, at Baltimore.

from thousands of active centres scattered throughout the entire land, will finally lead the profession, unitedly, to accept some method of dealing with the medical sects, creditable to all and promotive of the best interests of the profession and humanity; or cause it to return to the primeval principle of an honorable fellowship, thoroughly trained in medical science and art.

Of this drifting, we briefly note a few illustrations.

First, in the matter of medical education.

When all medical colleges were manned by regulars, homœopaths and other sectarians obtained their scholastic education at these schools. Later, the sectarians were able to educate their students in their own colleges, hospitals, and dispensaries. When medical departments were established in State universities, the sectarians sought a position in the same, that they might teach their peculiar views. Notable among the institutions where this end was sought, is Michigan University. Shortly after its foundation, the homœopaths induced the State Legislature to instruct the board of regents to place in the regular faculty a professor of Homœopathic Materia Medica and Practice of Medicine. For many years the regents refused to accede to this instruction, nor did they yield until it became an alternative of a sectarian professor or no university appropriation from the legislature. At this juncture, the Michigan State Medical Society arose against the alliance and protested with such force, as to cause the authorities to pause. The matter was at last carried to the American Medical Association, and settled by the passing of a resolution to the effect that it was as derogatory to educate sectarians as it was to consult with the same after they were educated. The regents now set up a distinct homœopathic college (on paper). The phrase on paper is used because the homœopathic students still continue to be taught by regular teachers in the following subjects, viz., chemistry, physiology, anatomy, bacteriology, hygiene, physiological chemistry, physics, pathology, histology, etc. That the regular professors should not be compelled to sign the diplomas of sectarians, a new scheme of issuing University diplomas was adopted, by which no professors' names appeared thereupon, but only those of the president and secretary. It will thus be seen that, in spite of the resolution of the American Medical Association, the regular faculty have been, and are constantly engaged, in educating those whom they know to be sectarians in medicine. As this arrangement is universally acquiesced in by the profession, it is clear that in the matter of educating sectarians, there has been a great drifting.

Of interest in this connection is the present agitation respecting the Homœopathic Medical College at Michigan University. Under the arrangement described, this college failed to commend itself to the homœopaths, so that the members of this sect practically repudiated it. Hence its classes so diminished as to compel the regents to seek some other method more satisfactory to all parties. The plan which thus far has seemed to meet the wishes of the regular faculty, the board of regents, and a portion of the homœopathic faculty, was the abolition of the so-called Homœopathic Medical College, and the placing of a professor of Homœopathic Materia Medica and Practice of Medicine in the faculty of the regular school. The final decision has not yet been announced. But that the deans, of both the regular and homœopathic faculties, and the regular physician on the board of regents should unite in seeking to place on the faculty of the regular school a homœopathic professor, is significant of a drifting, quite startling, and the more as no public protest has been made against it by the regular profession. Other State universities, than that of Michigan, having medical departments, are arranged along similar lines. These are all more or less responsive to the demands of the popular will, and this will, generally speaking, demands the full recognition of one or more of the "pathies" and "isms."

The first extensive revolt against the written law under consideration occurred in New York. It was preceded by an extremely bitter conflict and caused not a few ripples in the American Medical Association. The result of this revolt was that the friends of the written law, established the N. Y. State Medical Association and retained their allegiance to said law, while the opponents captured the old State Society, abrogated the written and returned to the unwritten law. To many this seemed a revolutionary proceeding, but when it is remembered that the revolting faction

simply returned to the first principles of the medical profession, principles which satisfied the profession during thousands of years, the matter assumes a different aspect. The reformers only abrogates the written law of 1847, preferring the larger individual liberty of the profession anterior to that date. Previous to this, Massachusetts had a contest along similar lines, which resulted in affording sectarians equal rights with regulars, and turning popular prejudice against the medical profession.

The Mississippi Valley Medical Association gives its members entire freedom in the matter of consultations. Other medical societies in various places, have taken similar action, notably in Chicago, Cleveland, etc.

An extensive knowledge of the habits of prominent physicians leads to the conclusion, that a fat consultation fee is rarely refused because the attending physician is a sectarian, Personally the writer has often been told by colleagues that he was a fool because he regarded it a matter of gentlemanly honor to obey the spirit and letter of the law of consultations while he retains membership in socicties having this law as a condition of membership.

Another marked illustration of this drifting was seen when a committee of its own appointment, reported to the American Medical Association that it favored such alteration of the code of ethics as would permit consultations between all physicians properly educated, legally qualified to practice medicine, and of honorable reputation in the place where they live. When it is remembered that the committee so reporting individually obey both the letter and spirit of the code bearing upon this point, it will be evident that their report indicates a drifting of the medical profession.

This drifting is farther seen, in that regulars and sectarians work side by side on boards of health, state and local, and on boards of other state institutions. This very imperfect sketch shows that, whether we like it or not, the fact cannot be disguised that the professional relationship of regulars and irregulars are, at many points, multiplying and extending. If, finally, through these relationships the sectarians shall be swallowed up by the medical profession, history will repeat itself. Within the memory of living physicians, specialists of all sorts were ranked as "irregular," and with them were classed "practitioners of massage," "electro-therapeutics," "hydro-therapeutics," etc. Now work in these fields is regarded as the most honorable, and the workers receive the largest returns in money, honor and fame.

Whither does this drifting tend? The history of the past and the logic of existing social forces point to but one result, viz., the absorption of all ideas that are true and helpful, and all persons who are honest and of good report, into the medical profession. To this end, larger liberty will be accorded the individual physician. He will be permitted to choose his professional associates from among those whom he knows to be properly educated, legally qualified to practice medicine where they reside, and of good report. Qualifications other than these will be regarded as purely local in their necessity and temporary in their existence, and to be controlled entirely by the individual physician. It were wiser to object to consultation with a physician because of known ignorance, lack of skill, dishonest methods, or disreputable character, than because of his sectarian name. Objection on the first ground is readily understood by any layman, but objection on the second fails to commend itself to most persons, and not infrequently brings the objecting physician into discredit.

The medical profession originated in the effort to systematically relieve human suffering and promote human health. Amid the glimmerings of dawning science, it jealously guarded each addition to its knowledge, and incidentally contributed largely to the advancement of science. In every age parasites have sought to ally themselves with the medical profession that they might use its resources to plunder a suffering, credulous humanity. To exclude such parasites from the profession has ever occasioned perplexing thought, and for this purpose the unwritten custom of centuries was maintained, and to add still more in the same direction, in 1847, the American Medical Association adopted the written law of consultations now in force. But from the facts presented, it is clear that at the present this law fails of its beneficent design. Large bodies of physicians no longer regard the written law as in accord with the nature of the medical profession, and believe that this law should either be abolished or made

to accord with the changed condition of our environment.

Apparently, if the profession is to present a united front to the world on this matter, a new statement must be made, satisfactory to the majority. All agree that the profession should be kept intelligent and clean, but all do not now unite upon a practicable method for attaining this end. Until such a method is devised and adopted with substantial unanimity, the drifting will continue; a drifting from a position incomprehensible by the laity towards one clear to every person; a drifting from a position calling for defence and explanation, towards a vantage ground commanding the entire field; a drifting from an indefinite standard towards a definite one; a drifting from a position affording no hope to those outside its circle, towards one giving hope to every intelligent, honest practitioner; a drifting from a position which loses the good work done by institutions other than its own, towards one in which it can absorb all good work, wherever done, and all good workers wherever trained; a drifting from a position of inflexible definition towards one of intelligent accord with forces animating the medical profession.

Urging on this drifting are very antagonistic elements. Physicians of the purest motives and highest character coöperate with those of selfish character and despicable motives. Promoting this drifting are State university medical schools, State medical examining boards, State and local boards of health, specialists, physicians; avaricious for fame, power or wealth, irrespective of the means by which they may attain their ends, and physicians jealous of professional honor and unselfishly serving humanity.

All these, however, are but instruments of far larger force, which form a part of the development of the medical profession as a portion of the nineteenth century civilization. Of these we note briefly the following: First—The intellectual atmosphere of the century has become softer, as seen in the diminishing asperity in religious, social, scientific, political and medical circles. Quite generally, we are learning that our opponents may be gentlemen, scholars, and valuable citizens, while vigorously opposing our individual beliefs and practices. Significant of the quality of this atmosphere was the meeting at Chicago of the representatives of all religions, and their discussing, under one roof, each others religious tenets. This atmosphere of free thought and untrammeled practice has stimulated men to expand their energies, without diversion, in the investigation of new fields, or enriching old ones; to develop good rather than destroy evil; to prevent infection more than to cure the infected; to establish the conditions needful to produce level-headed physicians, rather than fight sectarian titles.

Second—With the advancing century humanity has acquired a larger faith in the ability of truth to look after its own interests, if only each individual did his own life-work in the most perfect manner. Hence, physicians have been disposed to give plenty of rope to the offenders against truth, in the belief that thus they will best dispose of themselves after the classical method of Judas Iscariot.

Third—The rapid incubation of physicians; by emigration of the products of the doctor factories of other countries, (an importation which pays no government duty), and by the swarms yearly graduating from the medical schools of the United States; has swelled our ranks to quite uncomfortable proportions. The situation is still farther aggravated by the fact that vast numbers of patients, which naturally should contribute to the support of physicians, are largely absorbed by hospitals, ambulances, dispensaries, contract physicians, railway physicians, accident insurance companies, medical college clinics, and numerous private institutions supported by shrewd advertising. This crowding compels each physician to cultivate his field to the fullest degree possible. He is compelled to know all about the sectarians as well as the physicians of his field. This close contact has proved that some sectarians are better educated, more gentlemanly and honorable than some regulars. This personal knowledge renders it possible for him to coöperate with the sectarians in the management of cases in which they have a mutual interest and profit. Except for the crowding, this knowledge would have been difficult of attainment. Now it leads him to believe that professional character and ability are of higher importance than a sectarian name, and so powerfully drifts him away from the written law of consultations.

Fourth—Experience has shown that the fighting of a name, as that of a sectarian, is unprofit-

able to the fighter and the medical profession. Here, as elsewhere, "The blood of the martyrs is the seed of the chnrch." Persecution of sectarians, under their official designation, but increases their prosperity and discredits the medical profession. The profession is drifting to the practice of ignoring the special name and of looking after qualifications for doing creditable work, of persuading individuals to abandon untenable errors in theory or practice, or better still, of so training medical students that they will avoid "isms" and "pathies" and intelligently enter upon their relations with active physicians.

Conclusions.—1. In the matter of consultations the medical profession is drifting from the law written in 1847 to the unwritten law inherent in the medical profession since the first doctor entered upon his work—far anterior to any historic record.

2. This drifting was inaugurated and is continued by forces and agencies which have made the nineteenth century the most remarkable in history — individual men or institutions have merely served as instruments for the operation of these forces and agencies.

3. There need be no anxiety concerning this drifting. The medical profession will always remain anchored to its fundamental nature of a competent honorable brotherhood. The changes sought are merely the substitution of a thing of universal application for a sectarian name of limited scope. It is sought to exclude from fellowship all who are incompetent, or disreputable, whether they have or have not a sectarian name. The final attainment of this drifting will mark a far higher standard of professional life, and a truer exemplification of individual liberty.

4. It is believed that we are drifting towards the practical adoption of the following: "Every physician shall be deemed eligible for professional consultation who has shown that he has such preliminary training as enabled him to comprehend the study of medicine; has fully mastered the elements of medical science and art; has complied with existing laws respecting physicians in the state of his residence; and who has maintained an honorable reputation. Of these qualifications the physicians of his locality shall be the final judges. If those who know him best endorse him, then shall he be freely admitted to membership in all medical organizations and be eligible for consultations."

5. If the profession fails to agree upon a statement in substance like the preceding, the logic of events points to a rejection of the entire written law of 1847, and return to the unwritten law of previous centuries—the one now holding sway in all countries except the United States.

DIPHTHERIA.

BY W. J. WILSON, M.D., TORONTO.

Mr. President and Members.—That we may the better understand the treatment of diphtheria, it is essential that we should review the morbid anatomy of the disease and the conditions predisposing to it.

It is a disease mostly of early life, that being the time when adenoid tissue is most abundant in the throat and naso-pharynx, when glandular activity is greatest, and when nasal secretions are not only more abundant but are longer retained in situ than at any other period. Enlarged tonsils strongly predispose, from their prominence in the air passage, and especially from the amount of secretion retained around them. Associated with this condition, adenoid vegetations frequently block more or less the post nasal space, and produce mouth breathing and a more or less abnormal condition of all the surrounding parts.

A healthy mucous membrane will resist the disease much better than one that is defective. A bad stomach with coated tongue, or decayed teeth filled with food is a constant menace. The proximity of manure heaps, the throwing of kitchen slops just out of the door, and the storing all winter in large cellars under the dwelling, as is frequently done by farmers, of large quantities of vegetables, are frequent predisposing causes in country districts. In cities where the sewers contain the Klebs-Lœffler bacillus bad plumbing is a most fruitful cause. Of course where the germ of diphtheria is not in the sewer, the effects of sewer gas are to lower the vital forces, as would any unsanitary condition, and thus render the system more susceptible to the poison.

The conditions found vary much with the severity of the case. The membrane may spread

from the tonsil, which is usually the earliest point of attack, upwards through the nose, downwards through the larynx into the trachea and bronchi, or be limited to any one of these situations, or attack any abraded surface or exposed mucous membrane. Deposits have been found in both the stomach and intestines.

The pseudo-membrane is formed from epithelial cells, which have become inflamed and killed by the poison leucocytes, and fibrine, and contains, besides the Klebs-Lœffler bacillus, which is mostly near the surface, various pus-forming and pathogenic germs.

The diphtheria bacillus does not penetrate the tissues, but in passing through its life history produces toxines which are readily absorbed and produce the various toxic disturbances found in the disease. The associated germs may penetrate the tissues and produce suppurations or pneumonic complications. Necrotic foci are found in the bronchial glands and, in the severer forms, in the mesenteric and intestinal glands and internal organs.

From the paucity of lymphatic supply in the tonsil and larynx, little glandular enlargement takes place, but when the disease extends to the nasal chambers, the vascular and lymphatic supply is rich, and the glandular and systemic infection are apt to be early and profound. Albumin is found in the urine, and in the severer forms parenchymatous nephritis is apt to occur. The capillaries may take on hyaloid degeneration, and the blood remain fluid after death. This explains why nose bleeding is such a dangerous symptom. Dilitation of the heart cavities from muscular weakness is common, and may be increased by renal or pulmonary congestion. This condition of heart has an important bearing on operative procedures, and as it may not improve after intubation or tracheotomy, these operations should not be delayed till dilatation has taken place.

The diagnosis of diphtheria is often attended with much difficulty. In severe cases there can be little doubt, but in the mild ones and where the pseudo-membrane is limited to the tonsil and not in well formed patches, the diagnosis can only be cleared up by time or a bacteriological examination. During an epidemic we have all met with a greater than usual number of sore throats. This may in part be due to people being frightened, and coming with conditions which at another time they would not mention, but it is highly probable these are often mild cases of diphtheria, with little or no membranous deposit.

In the larynx or bronchi a primary deposit may or may not contain the Klebs-Lœffler bacillus, but the consequent laryngeal obstruction is the same. If the Klebs-Lœffler bacillus be taken as the test it becomes our duty in all doubtful cases to have a bacteriological examination made as soon as possible, and it is criminal to send patients to an isolation hospital on the first appearance of deposit on the tonsil, and surround them with cases of the pure culture before such an examination has been made. It is equally imperative that patients either in hospital or private practice should have cultures made from their throat and nose before their discharge. If this were thoroughly done there would be less complaint of discharged patients communicating the disease.

In the prophylaxis strict isolation is the most important point. This in country places, and especially in small houses, is often difficult. Where the well children can be removed in these cases their lives are often saved, but often there is no place to send them to, and they are forced to live in the infected house.

Under these circumstances we should treat those who are well from the first with the hope of either preventing their contracting the disease, or failing, that, modifying its severity. At present we are anxiously looking to antitoxic serum as a proficient prophylactic. But while using it we must not neglect other means. The children should be kept out of doors as much as possible, and warmly clad to avoid colds. Their digestion must be attended to, and iron and potash may be given with benefit. The nose and throat should be sprayed out with an antiseptic wash three or four times a day, to prevent lodgment of secretions and wash out any germs that may have settled there. The mouth and teeth should be frequently washed and disinfected.

School hygiene and a careful supervision of pupils are most important, especially during an epidemic, as at that time mild cases may be able to attend school through part or all of the disease. Children with sore throats should be sent home at once, and if cases recur, the school should be closed.

The dietary of the diphtheria patient is one of the most important matters in the whole treatment. Every means in our power should be used to keep up the digestion and nutrition to the highest point possible. Food should be fluid, bland, easily digested and as nutritious as possible. Digestive ferments may often be used with advantage, and stimulants should be given early, and repeated according to the requirements of the case.

Careful feeding, perfect rest and tact in nursing and general management are highly essential, and a defect here often turns the scale in spite of the most judicious medication.

Among drugs, everything from aconite and tartar emetic to alcohol has, at one time or another, been lauded as a specific, and, after a longer or shorter period, discarded or forgotten. The virulence of the epidemic, the surroundings of the patient, the feeding and stimulation, and the personal equation of both nurse and physician, all have an important bearing on the results, and make it difficult to judge of the merits of any remedy until it has been tested by many observers and in many series of cases.

Believing the disease to be of local origin, efforts have been made to exterminate it by scraping or rubbing off the membrane and applying germicides to the resulting abrasion. This plan must be begun at the earliest formation of membrane and is only applicable when the patch is small in size and easily accessible. After removal, solutions of perchloride or biniodide of mercury are freely applied. The whole process is repeated as often as any membrane re-forms. This method has seemed to the writer to check the disease somewhat, but not to have much effect on the whole duration of the disease. The same remarks apply to burning by caustics or the galvano-cautery, with the added danger of burning more than we desire and thus spreading the patch.

Seibert's method of injecting chlorine water beneath the pseudo-membrane has had brilliant results claimed for it, but it requires special instruments for its application and cannot be used in all situations. When limited to the tonsil, these measures are easy of application and appear to do good, but when we consider that these are the cases which are apt to recover under simple supporting measures, it becomes difficult to estimate the value of treatment.

It is difficult to carry out these measures in young children without making the little patients struggle so violently, that the waste of his strength may often cause them more harm than the treatment does good.

Papoid and the pepsins will digest the membrane, but while doing so, frequently have the disadvantage of making the throat tender and interfering with deglutition. Furthermore, they do not seem to shorten the duration of the disease.

Hydrogen peroxide and pyrodine are of great service by their disinfecting and solvent powers on the membrane. They act as efficient germicides and may be applied in most situations. Care, however, should be taken that the peroxide is pure and non-irritating, otherwise it seems to prolong the trouble; a little membrane will keep forming in a most persistent manner for some time after the most of the throat is clear.

Applications of carbolic acid, hydrarg. perchloride or biniodide, sulphur, solutions of chloral, iron, and in fact every known germicide, has been tried, and with more or less benefit. If the application be not enough to kill the Klebs-Lœfler bacillus or its associated germs, it will at least lessen in some degree their activity.

Paraffine and varnishes have been applied to exclude the air from the membrane, with the hope of limiting germ growth and preventing the spread of the disease by air currents, but their usefulness is very limited. Poultices and hot applications give a feeling of relief to the swollen glands but beyond this are of no use. Cold has a more decided effect. It may be conveniently applied by Lister's coil. A recent German authority has shown a good percentage of recoveries by this method. In what few cases I have tried it some symptoms were markedly relieved, notably pain in swallowing. It did not lessen the duration of illness or prevent the membrane spreading, nor did it prevent a severe post-diphtheritic paralysis.

Where the nasal passages are affected our great danger is systemic infection from the great vascular and lymphatic supply of these parts. Here our every effort must be directed to keep the passages free, and failure in this particular, as a rule,

means absorption of a fatal dose of poison. Hydrogen peroxide and pyorozone do excellent work in these cases, not only by disinfecting, but by keeping the passages open by their solvent action on the deposits.

Simple washing by saline solutions is often successful, but not having the solvent power of the peroxide on the deposits the passages can not be kept as free. If antitoxine stops the formation of toxines we will be able, in these nasal cases, to accomplish a great deal of good by the early and energetic use of solvents and washes.

Calomel fumigation requires more than a passing notice. Those who have used it speak very highly of it especially in larygngeal cases. The child is covered by a tent and from 15 to 60 grs. of pure calomel is heated over a spirit lamp or some convenient contrivance, so as to vaporize it slowly and so that the child can readily breathe it in. This is done every two or three hours, using the large and oft-repeated doses in the wore severe cases. Sometimes these large doses are used hourly for a few hours and from 2000 to 5000 grs. of calomel are used in a single case. The child's skin should be covered as much as possible to prevent settling of calomel on it, as it is a local action on the respiratory tract which is desired. His mouth and teeth must be cleansed after each fumigation and if the gums become spongy use a wash of pot. chlor. with astringents. Stimulants should be administered before each fumigation, and iron given to counteract the anæmia caused by the calomel treatment, as well as the asthenic tendency of the disease. The calomel must be absolutely pure to avoid irritation and the attendants must be careful to avoid inhaling the vapor, for although it seems to affect the patient very little it is often very troublesome to others.

The reports of recoveries by fumigation in laryngeal cases without intubation or tracheotomy have been very encouraging and where these operations have been done the results have been much better with than without the fumigations. To quote the statistics of Doctors McNaughton and Madden: out of 2417tracheotomies there were 286 recoveries, or 24.2%; out of 5546 intubations, 1691 recoveries or 30.5%; 505 fumigations in laryngeal diphtheria, 275 recoveries or 54.5%; 85 of these 505 were subjected to operation after fumigation failed, and of these 29 recovered, leaving 48.7% of recoveries for the fumigations alone. Where calomel fumigations were used and operation later 34.1% of recoveries were recorded, against 24.2% for traceotomy and 30.5% for intubation without fumigations.

These statistics show a decided benefit from the fumigations, but while such is the case, it is not advisable to trust to it too long where there is much stenosis, else the heart will become dilated and the vital powers so reduced as to render operative procedures useless. There is no question but early operation, be it intubation or tracheotomy, will give much better results in laryngeal stenosis than where it is delayed. It is also not a matter of indifference which operation is selected. Intubation has the advantage of making no wound, of being more readily consented to by parents, and if not successful, of not militating against any further operative measures. Closure of the nasopharyngeal space, great œdema of the glottis or extensive deposit in the trachea, would contraindicate intubation and point to a primary tracheotomy.

Among very young and weakly children, especially if the nursing is poor, intubation is preferable to tracheotomy. If the antitoxine treatment comes up to our expectations it will render results much better from both these operations by loosening membrane early and lessening the duration of the disease. There will be a certain class of cases with so much deposit in the trachea that it can not come through the glottis. In these cases, with antitoxine and calomel fumigations to hasten separation of the membranes, tracheotomy could be performed and the membrane removed by a curette through the tracheal wound, and thus, otherwise hopeless cases rendered curable. Where the amount of deposit is not excessive intubation is the ideal operation, and, where calomel fumigations fail to give prompt relief, should always be resorted to.

Whatever the antitoxine treatment may ultimately do for us, at present it can only take a place in our general treatment. It is not right to trust the treatment of diphtheria either to antitoxine or any other single remedy. No matter how efficacious antitoxine may prove in killing the Klebs-Lœffler bacillus, we must remember there are at the same time other pathogenic germs

in the throat and other conditions of system produced by the already absorbed poisons which will continue to call forth our best remedial efforts. Hygiene, diet, stimulants and atoxic and supporting treatment, with the best form of local antiseptics and germicides, will still be required and the results of antitoxine or operative procedure will be influenced largely by a judicious handling of all our combined resources.

Selected Articles.

WHEN AND HOW TO CURETTE THE UTERUS.

Indications.—The operation of curetting the uterus is indicated in a number of pelvic disorders which differ widely in their nature and gravity.

(1) Probably the lesion that most frequently demands its performance is chronic endometritis. But great care is required in the proper selection of cases, and this for two reasons. (*a*) Many cases of endometritis recover completely without any operation. Thus in simple uncomplicated cases we would first try the effects of non surgical remedies—rest, hot douches, saline aperients, glycerine and ichthyol tampons, such drugs as bromide of potash, chlorate of potash, hydrastis and viburnum, and the occasional swabbing out of the uterus with iodine or carbolic acid. Should these measures fail, curetting is distinctly indicated, and will, in the great majority of cases, effect a cure. (*b*) Endometritis is frequently associated with other and much more serious pelvic lesions, which call for a very different line of treatment. Thus endometritis, due to sepsis or gonorrhœa, is often complicated with pelvic cellulitis and peritonitis, with ovaritis, salpingitis, or pyosalpinx. To curette the uterus in the presence of such lesions would be to court disaster. I have seen a slumbering salpingitis converted into a virulent and fatal pyosalpinx by such a proceeding. It may be laid down as an absolute rule that if there be evidence of periuterine inflammation or disease of the uterine appendages, curetting is contraindicated.

(2) The second great class of cases which call for curetting are those in which we have, as the result of the incomplete emptying of the pregnant uterus, the retention within its cavity of pieces of membrane, fragments of placenta, even portions of a putrid fœtus. These retained morsels may give rise, on the one hand, to severe uterine hæmorrhage, and on the other to septic absorption. The symptoms are not at all in proportion to the size of the offending fragment. It is remarkable how small a piece of placental tissue—not larger than a hazlenut—will cause frightful and most persistent floodings. On the other hand, I have removed a mass of placenta as large as a man's fist, which had been retained in the uterus for many months, and which only caused an offensive discharge.

In these cases there must be no delay in operating—no dallying with medicinal remedies. Ergot and hydrastis are useless to relieve the hæmorrhage; antiseptic injections will not stop the offensive discharges; quinine and antipyrin will not check the progress of septic absorption. As soon as the presence of the offending fragment is diagnosed it must be removed with the curette. In no class of cases does operative interference yield more brilliant results. The hæmorrhage ceases at once, the offensive discharge disappears, the symptoms of septic intoxication subside, and the patient's health is restored with marvellous rapidity.

But it must be remembered that in the septic cases the prognosis depends to a large extent on the degree of septic absorption. If it be only a sapremia, the removal of the putrid fragment will cure the patient; if it be a septicæmia, the outlook is much graver. Curetting will undoubtedly save many cases of puerperal septicæmia in which the *fons et origo mali* is a mass of necrosing material in the uterus, and in which the systematic infection is not profound. But it is obvious that if a pyosalpinx have formed, or there be suppurative peritonitis, curetting will do positive harm. Curetting is not a panacea for puerperal fever; much discrimination is required in the selection of suitable cases. The best results are obtained where the symptoms clearly point to a retained and putrid fragment in the uterus, where the surgeon is called at an early stage of the disease, and where the clinical phenomena are those of septic intoxication rather than of septic infection.

(3) There are two diseases of the uterus in which curetting has been advocated as a palliative, namely, myoma and cancer. It has been recommended in certain cases of myoma as a means of checking the excessive losses. I cannot too strongly condemn such a proceeding. If the tumor be causing symptoms severe enough to call for interference, then it is better to perform removal of the appendages, myomectomy, or hysterectomy. If the symptoms be so slight as not to call for such severe measures, rest and the usual medicinal remedies will suffice. Curetting at best would only temporarily relieve the patient, and might do infinite harm by inducing sloughing of the tumor and subsequent septicæmia.

So, also, in the case of cancer, it is questionable if it afford any but the most transient benefit. Even if it temporarily relieves the patient, it is obvious that we cannot by its means remove the whole disease and so cure the patient. I have, it is true, seen striking temporary relief afforded by

freely scraping and gouging away the friable rotting diseased surface, and then vigorously searing with Paquelin's cautery the raw tissue exposed. The hæmorrhage and stinking discharge cease for a time, the patient's pain diminishes, she puts on flesh, and frequently buoys herself up with false hopes of cure. But at best the respite is short; and in many cases when the disease again manifests itself it advances with fearful rapidity. When the growth is strictly limited to the cervix or the endometrium, we should offer the patient the more certain hope of cure afforded by vaginal extirpation of the uterus. If the disease be too far advanced for this operation, the less we interfere with it the better.

(4) Lastly, curetting is occasionally demanded for diagnostic purposes. Where we suspect that the patient is suffering from early cancer or sarcoma of the uterus we may obtain, by curetting, fragments of tissue for microscopic examination, and may thus diagnose malignant disease in its early and most remediable stage.

Armamentarium.—The armamentarium for curetting the uterus should include the following: Anæsthetics, antiseptics, Clover's crutch, razor, speculum, vulsellum forceps, a set of uterine dilators, a set of curettes, including a "flushing curette," uterine sound, scissors, six Playfair's probes (or some substitute) armed with absorbent wool' Paquelin's cautery or a bottle of iodized phenol, iodoform gauze, sponges or gauze compresses, catheter, douching apparatus. I shall presently refer in detail to the use of these various instruments.

Asepsis.—It is of the utmost importance that everything that comes in contact with the genital tract during the operation must be aseptic. The instruments should be made entirely of metal and should be boiled for fifteen minutes in soda solution (one per cent.) immediately before each operation. Instead of sponges I use gauze compresses made of a square of gauze folded into eight thicknesses. These should be sterilized before the operation by boiling or steaming for an hour. They are not quite so absorbent as sponges, but they are cheap, easily prepared and easily sterilized. The same compress should never be used twice; and after the operation all that have been used should be destroyed. For the disinfection of the hands of the surgeon, his assistant and the nurses, I believe in prolonged scrubbing with soap and lysol solution (1 in 100), using a nail brush and loofah, followed by immersion in corrosive sublimate solution (1 in 1000).

Preparation of the patient.—The preparation of the patient is important. When we can choose our time the operation is best performed about midway between two menstrual periods. In many cases, however, as when the hæmorrhage is continuous or the symptoms are urgent, we must operate without delay. For twenty-four hours before the operation she must rest in bed. The bowels must be freely opened the day before; and on the morning of the operation an enema should be given to ensure an empty rectum. The vagina should be well douched the evening before, and again on the morning of the operation, with some reliable antiseptic solution—lysol, iodine, or corrosive sublimate. Immediately before the operation the nurse should pass the catheter and empty the patient's bladder.

The patient having been anæsthetized, she must be placed in the lithotomy position, and this is most conveniently effected by Clover's crutch. Even in cleanly women the hair about the genitals is laden with micro-organisms and hence should now be shaved off with a razar. The vulva should be scrubbed with soap and lysol water (1 in 100), care being taken to remove the sebaceous matter that is apt to collect in the various folds.

The vagina should be similarly cleansed and as far as possible rendered aseptic. It should be vigorously wiped out with pads of sterilized gauze. in order to remove as far as possible the thick mucous discharge that besmears it. This mechanical scouring is more effective in freeing the vagina of germs than is mere douching with antiseptics.

Before commencing the actual operation a final bimanual examination should be made in order to make sure that there is no disease of the appendages and that the uterus is not fixed by perimetric adhesions.

Insertion of speculum.—The perineum should be pulled back by some form of speculum. Sims' duck-bill speculum is the form usually employed for this purpose, but it necessitates the employment of an assistant. I can strongly recommend, in place of it, the use of Auvard's speculum. This is heavily weighted with a ball of lead, so that the instrument is self-retaining, and by its own weight pulls back the perineum and posterior vaginal wall. I have found it of great service when I have had to perform curetting without assistance. It can only be used, however, when the patient is in the lithotomy position.

Dilatation of the cervix.—The next step is to dilate the cervix. This is not always necessary. For instance, in puerperal cases the os is usually widely gaping and the canal patulous. There are numerous methods of effecting dilatation, each of which has its own peculiar drawbacks, though some are much more objectionable than others. Of all methods, that involving the use of tents is the most dangerous. The risk of sepsis, with all its disastrous consequences, is so great that the tents may at once be dismissed from consideration.

Mr. Lawson Tait's method of dilating the cervix by slowly forcing through it a series of conical

dilators, by means of continuous elastic pressure, is highly ingenious. It will, in the great majority of cases, effect its purpose well, and secure full and complete dilatation of the cervix. But, unfortunately, the method has many serious drawbacks. It is tedious, the process occupying from twelve to forty-eight hours. It requires very careful adjustment of the elastic cords in order to direct the dilator in the right direction. Should the uterus be retroflexed or anteflexed the dilator is apt to plough its way into the muscular tissue of the uterine wall and not dilate the internal os at all. It necessitates frequent attendance and repeated examinations on the part of the medical man. It usually causes the patient much pain, sometimes necessitating the free administration of morphia. But probably the most serious objection to the method is that it is rather apt to be followed by inflammatory mischief in and around the uterus, partly from mechanical irritation, partly from sepsis. I used this method exclusively for over four years, but was compelled reluctantly to abandon it in favor of rapid dilatation by means of Hegar's dilators, or some modification thereof. This latter method is infinitely easier, simpler, and less troublesome for the surgeon ; it entails no suffering on the part of the patient, being effected under anæsthesia ; and I am convinced that it is safer. Whilst the dilatation it effects is not so perfect as that attained by Mr. Tait's method, it is all that is required for the purposes of curetting.

The particular dilators I myself prefer are those introduced by my friend Doctor Hawkins-Ambler, of Liverpool. I have used them extensively for the past ten months, and have found them very satisfactory. They consist of a graduated series of metallic bougies constructed on the principle of the " wedge-shaped " bougies used for dilating the male urethra. Being made of solid steel they are easily rendered aseptic by boiling in soda solution (one per cent.) for a few minutes. Having a highly-polished surface, they slide in with a minimum of friction. A set of six will be found sufficient for all ordinary purposes, and will easily, rapidly, and safely effect dilation.

The anterior lip of the cervix should be seized with vulsellum forceps and drawn down to the vulva. If the uterus be so held by adhesions that it cannot be pulled down, the operation had better be abandoned. Having ascertained by means of the uterine sound the precise depth of the uterus and the direction of its canal, the surgeon holds the vulsellum firmly in the left hand and with his right slowly passes the smallest-sized dilator (smeared with some antiseptic lubricant) into the uterus. If it meets with no resistance he at once withdraws it and passes the next size. If the cervix grips the dilator and resists its passage, the surgeon must press the instrument slowly inward. Having gotten it in he should wait a little before withdrawing it. After a longer or shorter pause the grip of the cervix will be found to relax, and then the instrument may be withdrawn and the next size inserted. If this relaxation of the cervix does not occur within a few minutes the instrument should be withdrawn and re-inserted.

The limit of safe dilatation varies in different cases. Where the patient has previously had a child it is usually easy to dilate the cervix until it will admit the forefinger. But if the uterus be nulliparous, and particularly if it be infantile, the process of dilatation is more difficult, takes a longer time to effect, and should not be carried to the same extent. As a rule it is possible to dilate a parous uterus in from ten to fifteen minutes, whilst a nulliparous womb may require half an hour or more. When the most resisting part of the cervix is at the external os it is sometimes necessary to nick it bilaterally with scissors before dilating. The chief objection to the method of rapid dilatation is that if the tissue of the cervix be very resistant it will not stretch but tear. If unnecessary violence be employed, the uterus may be perforated or even ruptured by vertical splitting. Such accidents, however, should never occur if reasonable care be taken and there is no undue force or haste on the part of the surgeon.

A less serious accident is laceration of the cervix, which may occur if its tissue be very soft and vascular, the teeth of the vulsellum tearing out when the dilator meets with resistance. If the degree of dilatation will permit, the forefinger should now be passed into the uterus and its cavity explored.

Application of the curette.—For nearly all cases the sharp curette will be found preferable to the blunt one, and the best form is a modifiction of Simon's sharp spoon. It should be made wholly of metal so that it may be sterilized by boiling before each operation. The largest size that will easily pass the cervix should be gently introduced and passed without any force until it impinges on the fundus. Steadying the cervix with the vulsellum, the sharp edge should be pressed firmly against the mucosa and the curette drawn closely down—scraping off a vertical strip of the whole thickness of the mucous membrane and exposing the muscular coat.

By a repetition of this manœuvre a series of parallel strips are removed until first the anterior, then the posterior, and then the lateral walls are completely denuded. The surgeon must then carefully curette the fundus and the two upper lateral angles leading to the Fallopian tubes.

Cleansing the Uterus.—The flushing curette is a most useful instrument when the uterus contains much debris—as in cases of retained secundines. The handle and stem are tubular, and if the instrument be connected with the tubing of a

hydrostatic douch-can, will permit of the passage into the uterus during the act of curetting of a constant stream of weak antiseptic solution, which carries with it, as it escapes through the cervix, all clots and loose fragments of tissue. If the solution be used hot enough it will also check bleeding.

If the flushing curette be not used, the clots and tissue debris should be wiped away by means of probes covered with absorbent wool. The instrument commonly used for this purpose is "Playfair's probe." This consists of a wooden rod capped with metal. It is objectionable, because blood, etc., is apt to lodge between the wool and the metal, or soak into the wood, and be a source of sepsis. Where the probes are made wholly of metal (steel or aluminium), they are not open to this objection, being easily sterilized by boiling or being heated in a flame. They are, however, somewhat expensive (costing three or four shillings each).

For the last two years I have used wooden skewers ("pheasant skewers") instead of Playfair's probes, and have found them to answer admirably. I buy them from the poulterers in bundles of a hundred. To prepare them the ends must be roughly rounded off with a penknife, and the skewers boiled or steamed for an hour or more to sterilize them. When wanted for use the end should be wetted and the wool rolled on in a thin film. They are so cheap (costing sixpence to one shilling a hundred) that one can afford to destroy, after each operation, all the probes that have been used. No probe is used twice, and in this way the risk of carrying septic infection from one uterus to another is reduced to a minimum. When it is remembered how frequently curetting is performed in septic cases, it will be seen that this risk is no imaginary one.

Application of Caustic.—Having thoroughly washed or wiped out the cavity of the uterus and cleared away all clots and debris, we should apply to the raw surface left some powerful cauterizing or disinfecting agent. For a long time I used to sear the interior of the uterus with Paquelin's cautery. The objection to its use is that the caustic effect is not distributed evenly over all the raw surface. The internal angles and part of the fundus are apt to be missed, whilst the cervix may be so severely burned that sloughs form. At each spot it sears, its germicidal influence is of course intense; but it does not affect all parts equally, the sulci, crevices, and lateral angles escaping. For this reason it is better to swab out the uterus with a caustic liquid such as iodized phenol, applied on a wooden probe armed with absorbent wool. Any excess of the caustic that trickles out of the cervix must be at once removed with absorbent wool or gauze sponges.

Packing the Uterus.—A long narrow strip of iodoform gauze (one inch wide and one yard long) should be ready at hand, and the uterus firmly packed with it, the end being left hanging out of the cervix into the vagina. This gauze packing serves four useful purposes—it soaks up all excess of iodized phenol, it checks bleeding from the denuded surfaces, it protects the raw surface from infection from the vagina, and it ensures the drainage of the uterus. The vagina must be wiped free from clots, etc., and then lightly packed with iodoform gauze. A pad of antiseptic absorbent wool is placed over the vulva and fixed with a T-shaped bandage. The gauze may be removed on the third day, and thereafter the vagina douched night and morning with lysol or iodine water. In all cases the patient must stay in bed for ten days after the operation.

Results.—The immediate risk of the operation is extremely small, and the ultimate result excellent, if the operation be skilfully performed, in suitable cases, and due aseptic precautions be taken. Conversely, if the surgeon use unnecessary force or bungle his work, or disregard contraindications, or neglect the rules of surgical cleanliness, the patient runs the gauntlet of such disasters and complications as rupture or perforation of the uterus, laceration of the cervix, pelvic cellulitis, pelvic peritonitis, salpingitis, pyosalpinx, septicemia and pyemia—truly a formidable list! Not one of these evil sequelæ ought, however, to occur if the surgeon follow the indications I have laid down in this paper.—Dr. Christopher Martin in *The Provincial Medical Journal.—The Times and Register.*

AORTIC ANEURISMS. THEIR PRESENT STATUS WITH REGARD TO TREATMENT, MEDICAL AND SURGICAL.

(Concluded from November No.)

To review this method briefly, there have been some sixteen cases reported of the introduction of wire within the sac, with two cures. It is to be specially noted, that in both the successful cases the method adopted differed in exactly the points which have been mentioned as to be criticized in Dr. Abbe's cases. In the first place, silvered copper wire was used, which is almost without elasticity, and but a fraction of the enormous quantities used by other operators was introduced. In Loreta's case, six and a half feet was the amount, and in Morse's case four and a half feet. Both these patients recovered, and I may add that they were the only cases operated on by this method of which this may be said. All the other operators used immense lengths of wire, as in the cases which I have quoted. What are the practical points which we may learn from the history of this procedure?

First, that it is possible to puncture an aneurism with a fine canula without risk of serious hæmorrhage, either at the time or subsequently through the puncture. Abbe's case did not lose three ounces of blood, although when the canula was first introduced the blood spurted three inches. This part of the operation is therefore without serious danger, an important lesson. Second, the use of wire or any other material, which, when within the sac, will increase the pressure, is attended with risk. This forbids the use of elastic wire. Third, the introduction of a large mass of wire, even although it be inelastic, is not advisable, first, because of its weight, and second, because so large a quantity of wire cannot be introduced into a small cavity without producing tension, which is the very thing to be avoided in an aneurism.

The use of electricity in connection with a mass of wire within the sac has already been alluded to, but the method of inducing the formation of a clot by galvano-puncture alone far antedates the method of Morse, having been first used by Phillips in 1829.

To Ciniselli, however, we are indebted for its full development. So far there have been 114 cases reported, with the following results: Temporary benefit, 69; 38, no improvement; 7, doubtful. Barwell, in his commentary on Cinisell's article, says that the improvement in most of the cases reported as benefited is to be regarded as very doubtful. Even Dujardin-Beaumetz admits that the benefit was temporary, the interval of life in the most favorable case being five years. One may criticise this method as follows: In the first place, the amount of clot produced around each needle is very small, so that where several needles have been used, we do not have a uniform deposition of fibrin throughout the whole interior of the sac, but rather several isolated deposits, and these may or may not be at the weakest point. The method does not seem to be attended with much, if any, danger. Observers seem to support Barwell's notion, that the method is not as productive of benefit as the authors in question would lead us to suppose. So far, all the procedures which have been noticed, have dealt with the sac itself, and are particularly adapted to anuerisms of the thoracic aorta, where interference with the vessel itself is out of the question. I have said out of the question, nevertheless, I have been able to find two cases in which a temporary ligature of the thoracic aorta was done for aneurism. One of these cases was reported in the *An. d. Cirgia*, Argentine Republic, Buenos Ayres, 1892, xv., p. 146. In this case the vessels ruptured into the posterior mediastinum. The other case is reported by Villar in the *Mem. et Bull. Soc. de Med. et Chirurg.*, Bordeaux, 1892-3, p. 20-30. In this case the rupture also occurred into the posterior mediastinum. Any discussion of these cases seems out of place, as we do not live in the Argentine Republic or in France, and such interference here might bring us into strained relations with our Boards of Health with regard to the proper wording of the death certificate. It does not seem out of place, however, to discuss the question as to whether the abdominal aorta may not possibly be made the subject of an operation, which shall be feasible and curative. Already in England a very common way of treating aneurisms of this part of the aorta has been by means of compression with the aorta compressor for a number of hours, generally under an anæsthetic. Ten cases have been treated after this method, five successful, five unsuccessful. All the deaths have resulted from injury to the abdominal viscera, due to the long-continued and great pressure employed. The method was employed before the days of antiseptic surgery, and its use was due to the dread which then prevailed of opening the peritoneum. An operation, which, although seldom done, has a record of fifty per cent. of recoveries, deserves more than a passing mention. Evidently in the successful cases, the circulation in the abdominal aorta was, if not entirely obstructed, sufficiently obstructed to effect a cure. Therefore this may be regarded as possible, to obstruct the blood current through the aorta long enough to cure an aneurism, and yet not injure the vessel at the point compressed so as to give rise to hæmorrhage. Now may this be safely done with regard to the opening the peritoneum for merely explorative purposes? I have seen the peritoneum opened merely because a woman complained of a constant pain at a particular point, there being no evidence whatever of tumor. The operator found nothing, and closed the abdomen with the remark that if the pain was of hysterical origin the operation would probably do the woman good anyhow. There is hardly any operation with less risk nowadays, than these merely explorative openings. It is extremely rare for an accident to happen as a result of the operation itself. We may, therefore, set this consideration aside. We are at liberty certainly to examinean abdominal aneurism. Can we safely apply a ligature to the vessel, either by temporary ligation or permanently? Let us consider the first question. If the ligature is to be applied above the origin of the renals, the only possible procedure would be the temporary ligature or ligation immediately below, for I do not think that there is sufficient collateral circulation between the thoracic and lumbar intercostals to supply the kidneys with sufficient blood to keep the system clear of urea. If the old methods of ligation are to be adopted, which entail the use of a rather narrow ligature with rupture of the inner coats, and obliteration of the vessel, I do not believe that we can depend on this method of tem-

porary ligation, which is what is meant in the two cases of temporary ligature of the thoracic aorta, which I have mentioned. The ligature is simply tied, so as to rupture the inner and middle coats, and then removed. I need not detail the experiments on animals on which this method is based. Suffice it to say, that our expectations that the arteries of the human subject would behave in the same manner, has not been realized. We may, however, be led to a successful method of ligation, if we consider what is involved in the successful compression of the aorta by a compressor. It seems that the cardinal principle which should guide us, is the fact that this vessel will tolerate approximation of its walls through a large area, when it will not bear the compression of a narrow ligature involving the rupture of its coats. Is that not the lesson which these five successful cases teach us? It may be possible in this manner to bring about obliteration of an aneurismal sac without the obliteration of the main vessel. Even admitting that in these cases cited, the aorta was rendered impervious, we are then taught that it is possible for this to be done, and that the collateral circulation in the course of a few hours will render it possible for the tissues supplied by the original trunk to draw a competent supply from the anastomosis. To one or the other of these conclusions must we come in the light of these five cases. With regard to the practicability of performing the operation of ligation of the abdominal aorta, it may be observed that it has been done ten times, and that all the cases have been fatal. An analysis of the cases, however, fails to show that the ligation had anything whatever to do with the fatal result, except in one case. In four of the cases the operation was performed for the relief of hæmorrhage, which had already brought the patient to death's door. The remaining six cases were for aneurism. These ten cases may be tabulated as follows:—(1) Escape of inflated intestine; breaking of aneurism needle; long search for it in folds of mesentery; insufficient care in closing bleeding vessels. (2) Bladder disease. Dilated ureter. (3) Bursting of the sac by manipulation. Inclusion of ureter. (4) Fatty degeneration of heart. (5) Very complicated injury caused by the previous condition rather than by the operation, which terminated in a very different procedure than that intended. (6) Malignant disease of kidney. Nephrectomy. The four cases not included in this list, lived forty, forty-three, sixty hours, and ten days twenty-one hours. Therefore Barwell remarks, that the chief theoretical objection to the operation, oppression of the heart and lungs, seems to be met by these facts. The first patient died of peritonitis. Of the second case, the cause of death is not given. The third died of exhaustion after secondary hæmorrhage from the common iliac, for which the aorta had been tied. Monteiro's patient, after living almost eleven days, died of secondary hæmorrhage. In his case the narrow ligature was used after the old method. In a suitable case, therefore, there does not seem to be anything in the history of these four cases to forbid us with improved methods of ligation to make the attempt to save life by placing a ligature, temporary or permanent, upon the abdominal aorta.

The recent work of Ballance and Edmunds on the ligation of arteries in continuity, one of the most valuable contributions to surgical science which has appeared in many years, offers suggestions which may render it possible, by using the knot and the method of ligation which they advise, to do what has never yet been done, successfully ligate the aorta. They insist that it is not only not necessary to divide the two inner coats of an artery to successfully occlude it, but that this is precisely what should be most carefully avoided. Their experiments show that it is only necessary to bring the inner walls of the vessel in contact and keep them there, and that the vessel is thus just as successfully occluded as in the old method, without the same danger of secondary hæmorrhage, For this purpose, the ligature should be flat, soft, broad, and with a knot, which shall not slip. For this purpose they have devised a knot which they have termed a stay knot. It is made as follows, quoting from the authors: "The best way of tying two ligatures is to make on each separately, and in the same way, the first hitch of a reef knot, and to tighten each separately so that the loop lies in contact with the vessel without constricting it. Then taking the ends on one side together in one hand and the two ends on the other side in the other hand, to constrict the vessel sufficiently to occlude it, and finally to complete the reef knot. The simplest way of completing the knot is to treat the two ends in each hand as a single thread, and to tie as if completing a single reef knot. This knot we have called the stay knot, and it is this which we recommend." I have had practical experience with this method, and think most highly of it. My first operation in my service at the Long Island College Hospital was the ligature of the femoral in Hunter's canal for the relief of popliteal aneurism, which was near rupture, and causing the man intense suffering. On examining the artery previous to operation, in Scarpa's space, I found it baggy. No other word expresses its condition. It had absolutely no resiliency. The man was seventy years old, and I felt sure that to use the narrow ligature would be to invite secondary hæmorrhage, even if I did cut clean through the vessel at the time, an accident which has by the way actually happened. I made up my mind to use the method which I have described, and to use six strands of floss silk, the material recommended. I found the

vessel without much difficulty and applied the silk, three strands above, three below, and cut between. The vessel was very large, the largest I have ever seen. At the point of ligation it was as large as my thumb, and as I held the ligature in my hand and looked at the cut ends of the artery, I held my breath for a moment and anxiously entreated my assistant to keep the vessel under his fingers at Scarpa's space. The particular point to which I wish to call attention is the condition of the three coats. Each one was separate and distinct from its neighbor. So degenerate was the vessel that there was absolutely no apparent connection between the different tunics, no more than between a man's coat and his vest. I am happy to say that I had no hæmorrhage, neither then nor subsequently, and the wound healed by first intention, the floss silk giving no trouble. The man lived more than two months, and finally died of exhaustion from slow progressive gangrene, due to the inability of the anastomotic circulation to supply the limb, his friends refusing to permit further operative measures. This artery was the most utterly diseased I have ever seen, and I am now in my sixth year in the dissecting room, and have seen many hundred arteries. I am quite sure that I should have promptly cut through the vessel had I used a hard or round ligature, and I do not believe that any other method than that of B. and E. would have been successful. The walls of the vessel were brought together for the space of at least one-half an inch by the floss silk, and there was no injury inflicted on the vascular tunics softened as they were by fatty degeneration. At the time I thought, here is the method, if any, by which to ligate the aorta. It fulfils the indications pointed out in my remarks on the method of compression by apparatus. There is no doubt but that the method of B. and E. is that which we must use, if ever we are to ligate the aorta successfully. There now comes up the question as to whether the ligature on the vessel shall be permanent or temporary. If it be necessary to apply the ligature above the origin of the renals, there is no question in my mind that any permanent occlusion of the artery would result in death by uræmia. It is more than probable that in this situation we shall never be able to interfere with the circulation in this great vessel. If, however, the circulation in a vessel of this size may become re-established after a temporary ligature, which, lasting several hours, shall yet do no injury to the walls of the artery, it still may be possible to ligate above the renals, but not otherwise. We may gain some information on this point by experiment on animals, but we can never be certain of the human subject until we have tried it. There is another method of diminishing the circulation in a vessel of large calibre, which may prove of service in such a contingency. In a water pipe the velocity of the flow of fluid is diminished, if the pipe turn at an angle. The diminution increases with the degree of the angle, until when the angle becomes a right angle. almost the whole of the head due to the velocity of the stream is lost. I have thought that possibly advantage might be taken of this fact to so reduce the velocity in the blood current of the aorta, as to render it possible for the contents of an aneurismal sac to solidify by producing an antero-posterior angle in the vessel. Whether it is possible to produce such an angle by slipping under the vessel a sterilized glass rod or soft rubber tube, I do not know, but intend to make the experiment on animals. My apology for bringing these suggestions before the Society to-night, must be the intractable nature of these cases, and the failure of any ordinary means to be of use to us. Dr. Wyeth, in a personal communication to the writer, has suggested the possibility of making a gradual ligation so as to allow the collateral circulation to become established. His idea is to place one ligature around the vessel, which shall more nearly stop the circulation, and so on. As I have before stated, I do not believe it possible to establish sufficient collateral circulation by way of the intercostals and the anastomosis of the internal mammary and epigastric, to furnish sufficient blood supply to the kidneys for them to fulfil their function. Below the origin of the renals this suggestion may be of service, although the history of Monteiro's case, which lived for eleven days and then died of secondary hæmorrhage, seems to show that such a proceeding is unnecessary, as far as securing collateral circulation is concerned. It may yet be possible to apply a ligature to the aorta by means of the method of B. and B., with success, for aneurisms of the aorta have been cured by compression and on the circulation in the vessel can be occluded by ligation without the risk to the viscera involved in compression through the abdominal wall, it seems justifiable to attempt the ligation in suitable cases, operating by modern methods, the broad soft ligature, and avoiding laceration of the arterial coats. The method of Macewen seems to be safe enough as far as the operation itself is concerned, which consists in irritating the interim of the sack by needles thrust through its walls. I have been able to find a record of but one case, which has been treated by this procedure and cured. Halsted, of Baltimore, writes me that he tried it unsuccessfully in one case.

To conclude, it seems to me, as if aneurisms of the thoracic aorta may be most safely attacked after medical treatment has failed, by the introduction of a small quantity of inelastic wire. Abdominal aneurisms may first be explored through a celiotomy wound, so as to determine their exact nature and relations, after which the

question of treatment will depend on their situation. It may be impossible to use other means than that pointed out for the thoracic variety, or the other methods of temporary or permanent ligation may be resorted to, according to the conditions revealed by the exploration.—Dr. Bristow, in *Brooklyn Med. Jour.*

REMARKS ON GOITRE, WITH REPORT OF CURES.

John Beattie, aged 46, a stonecutter by trade, consulted me in December, 1894, about his eyes. I prescribed the needed glasses, and noticed he had a very large goitre which I took to be a fibro-cystic enlargement of the thyroid gland, from a very cursory examination. There were several cysts, one in the right and two in the left lobe of the gland. I asked why he did not have it treated, and his reply was that he was so discouraged by the failures in the past, he had given up; although it was steadily increasing in size. It had begun about fifteen years previously, as far as he could recollect, and for over twelve years had been a marked deformity. He had tried iodine injections, tapping sac with an aspirator, the constant current and, as he expressed it, the "electric needle."

On June 27, 1895, he returned and asked me what could be done with the goitre, as it was becoming an impediment to respiration because of compression of the windpipe. Having had very satisfactory results with iodide of potassium by cataphoresis in goitrous cases, I commenced treatment with this plan. Up to Wednesday, July 17, I had used cataphoresis twelve times, with some slight diminution of the tumor and improvement to respiration. On July 17, I opened the central cyst at the bottom, and drained off a quantity of dark-brownish, muddy fluid, similar to what is seen in ovarian cysts, etc. The sac was washed out until the returning liquid was clear and a small quantity of iodine injected. The opening was kept free by packing with gauze. For several days the sac was washed out and packed daily, with considerable improvement.

On July 27, I cut into the left cyst from the top and passed the knife across and out at the opening made in the lower part of the central cyst, which was followed by a discharge of the same fluid and venous hæmorrhage. Iodine was injected and a silver drainage wire was inserted, entering one opening and out through the other; antiseptic gause was packed into the cyst. The next day he was unable to come to my office, being confined to bed. He was visited twice daily, and the sac was washed out with peroxide of hydrogen and bichloride of mercury.

On the 31st, his neck was enormously swelled, especially on the right side, all the lymphatics being involved, and deglutition was almost entirely arrested. I at once cut into the right cyst and drew off a great quantity of fluid. This sac was connected with the others and a drainage wire, with packing, inserted. Every day the sacs were washed out, disinfected and packed. Quinine and stimulants were used internally. On August 4 his temperature rose to 104°, pulse 126; and on the 5th and 6th, 101°; and in a few days normal. He was put on iodine of potash, which was increased to 60 grains three times a day. By September his neck was reduced almost to its normal size. Some little thickening of the parenchyma of the gland remained, although the cyst had entirely disappeared. For this, cataphoresis was continued, and you saw his conditions two weeks ago, when he presented himself to this Academy. From wearing a 17 inch collar, he was wearing a 14½ inch. The contour of the neck was perfectly natural. The thyroid cartilage was prominently defined and, with the exception of the scars of the incision, there was little or no sign of trouble of the thyroid gland.

The above case is an interesting one in its results, and on account of the prominence which the thyroid gland has assumed in medical journals the last year or so, especially in relation to the use of the extract of the thyroid glands of animals in the treatment of myxedema; although the subject of goitre itself seems to have received but little attention. I find, in looking over the medical journals of the last year or so, that very little is said in relation to this matter; most references to the thyroid gland being in connection with the treatment of myxœdema. Goitre, however, whilst receiving but a short chapter in most text-books on surgery, is a subject of considerable importance. We have different troubles of the thyroid gland, such as acute thyroiditis; bronchocele, or goitre of different forms, such as follicular, fibrous, fibro-cystic and cystic; and that peculiar complex of symptoms known as exophthalmic goitre.

I have no doubt that the reason that we only occasionally find writings upon this subject in the regular medical journals is due to the lack of knowledge of the functions of the thyroid gland, and the difficulty of explaining etiologically the various changes that take place. Some recent investigations into the functions of the gland by Hurthle, Eulenberg and others, may result in a better understanding of the pathological alterations. Hurthle reports that the colloid substance in the follicles is produced by the protoplasm in the epithelial cells, and that the secretion of the gland consists in the formation of this colloid substance. It is supposed that pathological changes in the gland are due to some deterioration of this normal secretion. Probably some evidence of this is found in the fact that the same

treatment (the use of thyroid extract, for example) decreases the enlarged gland and improves the bad results which come from the absence of it, such as myxœdema. Another corroboration, probably, is the well known fact that cretinism is found in connection with both hypertrophy and atrophy of the gland.

Eulenberg thinks that the constitutional symptoms of exophthalmic goitre may be the direct toxic effects of absorption into the veins of the increased altered secretion of the follicles, which produces chemical changes in the constitution of the blood. If this theory is correct, the nervous origin of exophthalmic goitre must be discarded. That it is tenable is shown by the fact that nearly the same symptoms are produced by the artificial introduction of thyroid secretion in excess. But these theories in regard to the etiology of the pathological changes of the thyroid gland are somewhat speculative as yet, and require further investigation and confirmation.

The treatment of troubles of the thyroid has lately received considerable impetus. We might divide it into medical, electrical and operative.

Medical.—The medical treatment is by the internal administration of suggested remedies, such as iodide of potash, fluoric acid, thyroid extract, etc., and locally, by the introduction in the substance of the gland of iodine, iodoform, etc. Everyone is familiar with the iodine treatment. It is the oldest and has held its ground longer than any other, with varying success. Probably 90 per cent. of follicular and fibro-cystic goitres are reduced in volume by this treatment, but few radical cures are recorded. Garé of Tübingen reports, however, very great success with the injection of iodoform, one part to seven of oil and ether. Kocher of Berne has used thyroid extract in twelve cases, all of which were improved, some cured. Bruns of Tübingen also tried feeding in twelve cases with fresh calf thyroid. Four or five cases were cured, and the others, with the exception of three, much improved.

Electrical.—Under this heading I would include three methods of using electricity. First, galvanizing, by passing the continuous current through the gland, both poles being on the tumor; second, by electrolysis; and third, by cataphoresis. With the use of the constant current I have had little or no experience. It has been suggested for the reduction of the different kinds of glandular enlargements, and has been used with varying success. Electrolysis I have used in follicular and fibrous goitre. The negative pole is generally passed into the growth and a current of ten milliampères is turned on and continued for about five or ten minutes. This can be repeated in from three days to a week, according to the amount of irritation set up, the strength of the current being increased until we can use as much as forty or fifty milliampères. Gradually a reduction of the growth takes place under this treatment, and a number of cures are recorded as its result. It is of very little service, however, in cystic goitre, because we cannot get the effect of the negative pole in the alteration of the tissue of the growth as we do in the more solid tumors. It has been suggested to tap the cyst, wash it out, fill it to distension with chloride of sodium solution, and by this means receive the full effects. With electrolysis from four or five to a dozen or more sittings are required.

Cataphoresis.—The third method, that of cataphoresis or the introduction of remedies by the direction of the electric current, has been in my hands a very satisfactory treatment, particularly in follicular goitre. I can record two or theee cases in the last eighteen months where I have had the most satisfactory results from the use of iodide of potash by this method. I use, attached to the positive pole, a metal disc, which is covered with wet chamois or cotton, upon which is packed as much powdered iodide of potash as it will hold. This is covered over with a thin pledget of wet cotton and applied to the growth. The negative pole is held in the hand, or applied to the back of the neck, or between the shoulder blades. I have seen very little notice of this method of treatment. The only case that I know of recorded was one reported by Dr. McGuire two or three years ago, in the *Virginia Medical Monthly.*

In the goitrous enlargement or bronchocele, which one observes in young people, young girls especially, about the time of puberty, I do not know any more satisfactory treatment. It is true that this form of bronchocele occasionally manifests itself only at the time, or during the period of menstruation, and very frequently gets well of itself. I am not, however, referring to this form, but to those cases of persistent enlargement of the gland, which not only is seen during the menstrual period, but is present more or less all the time until active measures are instituted for its relief. I have seen cases of follicular bronchocele that have become very large in women because no attention was paid to it in the stage where it would swell up and go down, as it were, on the theory that it would get well of itself. One of these was very large, and persisted for several years, and was cured by the application of iodide of potash by cataphoresis. This case I have already mentioned, and it is one known to most of you. I am satisfied that further investigation into this method of applying remedies will show it to be of great value. In regard to operation, I am satisfied that in cutting open the cysts, as I did in the case above recorded, that I was exposing this patient to as great danger as if I had removed part of the gland. This was evidenced by the symptoms that developed.

Partial thyroidectomy, or strumectomy, as some call it, is recommended by many authors for follicular and fibrous goitre. Strom of Christiania has reported quite a number of operations with success. He also advises enucleation of the cyst for cystic goitre.

Morris, in the *Lancet*, January 5, 1895, reports two cases of multiple cyst of the thyroid gland, such as the case before reported, in which he also practiced incision with satisfactory success.

Marsh, in the *Birmingham Medical Review*, reports five cases of bronchocele operated on for urgent pressure symptoms (all the cases being of comparatively short duration), in which he had good results, and he advises removal of the isthmus and as much of the lateral lobes as may be needed to relieve pressure, which is followed by atrophy of the rest of the gland.

Brooks reports two cases of partial thyroidectomy followed by success.

Operation has also been suggested and performed by quite a number of authors for exophthalmic goitre on the ground that it is a hyperplasia of the gland structure, and that the nervous symptoms are due to the toxic effects of the altered secretions, and a number of cures are reported. Greenfield's article in the *British Medical Journal*, December, 1893, is probably the best of these contributions. All operators, however, have come to one conclusion, that complete removal of the gland is unjustifiable, and that all operations are more or less dangerous, death on the table having resulted in a number of cases from collapse. It is doubtful that any deaths have resulted from hæmorrhage, although in some cases the bleeding is hard to control because of the difficulty of applying ligatures to the vessels, whose walls are in such a condition that ligatures will tear loose. To arrest the bleeding by packing is not satisfactory and may be dangerous. I have no doubt that during operations on the thyroid gland some of the fatal results were due to prolonged pressure on the pneumogastric nerve. If proper care is taken in performing the operation, the bleeding arrested as the operation proceeds, and the field kept as aseptic as possible, I believe the operation of partial thyroidectomy would be comparatively safe. Care must also be taken not to injure the recurrent laryngeal nerve. This operation has been successful in a great many instances, but there have been some failures, as is the case with all operations in surgery.—J. A. White, in *Maryland Med. Jour.*

IODINE was discovered in 1812 by Courtois. It is found in several marine plants, and extracted by a simple process. Its use in medicine is said to date from about 1825, when it was first employed in the hospitals of London and Paris.

CHRONIC HYPERTROPHY OF THE PROSTATE GLAND.

This disease or pathological condition is essentially seen in the last half of life, rarely before the person reaches the age of fifty, and it with its consequences has carried to the grave many useful citizens whose lives might have been lengthened had the properly directed efforts been observed. Until recently it has been a disease of *noli me tangere*, but, thanks to the ingenuity of Dr. J. Wm. White, we have now at our command a means by which the enemy can be conquered and our old men afforded relief from their suffering and their lives prolonged.

Sir Henry Thompson found that one man in every three over fifty-four years of age, examined after death, showed some enlargement of the prostate; one in every seven had some degree of obstruction present, while one in every fifteen had sufficient enlargement to demand some form of treatment.

Coming on insidiously, as it does, our patient is unconscious of its existence until some sympathetic condition arises to call our attention to it.

What, then, is hypertrophy of the prostate gland? What its morbid anatomy? It is the development of circumscribed tumors in the fibro-muscular tissues and atrophy of the glandular structure to such an extent at times to convert the prostate into a homogeneous mass of fibro-muscular tissue. The development may be central, unilateral or bilateral, with no positive limit as to size or shape. Thompson has seen it 4½ inches in transverse diameter, and 12 ounces in weight has been reached.

The part most frequently involved is the posterior median part, or "third lobe," as it is improperly termed, when it is known as centric median hypertrophy, and constitutes one form of bar at the neck of the bladder, first described by Guthrie in 1836, in his work on the "Anatomy and Diseases of the Urinary and Sexual Organs."

The etiology of this condition is yet unknown, and the numerous hypotheses advanced by scientific men do not cover the ground, and need not be discussed in this paper. It is not excessive use of the organ, for it occurs in very temperate men, nor can it be attributed to sedentary habits, nor active habits, for it is found in both classes of men; it is not due to venous stasis, for this is a sequence to the disease.

From its analogy to the uterus in its anatomical construction, it corresponds with that organ in the tendency to the development of fibroid tumors. I am inclined to the opinion that the colored man is more liable to the development of these fibro-myomas, as is the case with the

colored female. I can find no statistics to verify my report.

Distortion and elongation of the prostatic urethra, decrease in its calibre, elevation of the vesico-urethral orifice, and increased venous stasis, are some of the primary pathological conditions in hypertrophy of the prostate, and as a result of these we find decrease in the expulsive power of the bladder, residual urine, slight catarrhal inflammation of the bladder, with a frequency of urination, and later, after a few years, there is formed: 1st, Dilatation of the bladder, with increased residual urine; 2nd, Hypertrophy of the muscular coat and development of muscular bands and intervening sacculations; 3rd, Dilatation of ureters and pelves of the kidneys and stagnation of urine in them; 4th, Ammoniacal fermentation of urine and general congestion of the entire urinary tract; 5th, Septic inflammation, extending to the kidneys; and, 6th, Death from uræmia, induced by rough handling of uncleanly instruments, where there has been retention and general congestion.

The symptoms of this complaint vary with the extent of the disease. Among the earliest are feebleness in starting the stream, undue frequent nightly calls to pass water, and an irritable bladder, with a mild form of uræmia with its accompanying indigestion, nausea, loss of appetite and polyuria, sometimes called diabetes insipidus to cover ignorance.

The diagnosis of prostatic hypertrophy is comparatively an easy matter, with these symptoms before us.

The surgeon's forefinger, well oiled and gently introduced into the rectum, comes in contact with the prostate on the anterior rectal wall. Here examine carefully its size, contour, firmness, and regularity of surface. Undue deviation in size, firmness, etc., is an indication of the existence of prostatic disease.

But dependence on the rectal surface alone is unreliable, although an adjuvant, as it is the vesical surface that provokes the vesical symptoms. In addition to the symptoms given above, the skilful manipulation of the sound, assisted by the finger in the rectum, noticing the direction the point of the sound takes, the mobility of the point in the prostatic urethra and ease with which it is introduced, will greatly aid us in our diagnosis. Then further search for residual urine by means of a catheter, which, if found, will confirm our diagnosis. The cystoscope is of little use in diagnosis, on account of our inability to pass it through the distorted urethra.

Now exclude urethral stricture, cancer of the prostate, calculus, tuberculosis, degeneration and sclerosis of the bladder-wall, and our diagnosis is complete.

The prognosis in prostatic hypertrophy under the ordinary means of treatment is unfavorable, and the disease can only be palliated and symptoms treated; but since the introduction of the operation of castration for its relief, our prognosis is more favorable. No routine treatment can be prescribed, the requirements varying with each case. Our resources for meeting the needs of different cases may be either palliative (medical) or surgical, or both.

Palliative or Medical. — 1st. Relieving the venous stasis of the prostate and bladder by proper diet and proper exercise, massage of the prostate *per rectum*, assisted by a sound to the urethra and complete evacuation of the bladder by means of a clean catheter every ten to twelve hours as the case may require; while internally, laxatives, ergotine, and strychnine are certainly useful.

2nd. Where cystitis exists, daily irrigation of the bladder and prostatic urethra with a solution of permanganate of potassium, 1-5000, 1-3000, 1-2000, allowing three ounces to remain in the bladder for an hour or longer.

3rd. Where there is distortion and elongation of the prostatic urethra from bilateral hypertrophy, large sounds or special dilators will aid in the treatment. But these should be used with caution, never forgetting that we are handling an old man, whose vital forces are on the decline and whose recuperative powers are not those of youth. The danger of provoking uræmia with the first use of the catheter or sound is not to be forgotten at any time. To combat septic inflammation in the bladder we have other means at hand; only the following may be mentioned, viz.: Hot water, nitrate of silver, bichloride of mercury 1-1000, boroglyceride, besides the one mentioned above.

Like many other pathological conditions, prostatic hypertrophy has called forth the ingenuity of surgeons, by which a number of surgical procedures have been devised to accomplish some relief for suffering senility.

The severity and danger of some operations have been sufficient to condemn them, while the objection to emasculation has caused many patients to reject the requests of their physicians, they preferring to continue in their suffering rather than submit to the operation.

Prostatectomy, both by the perineal and suprapubic methods, was for a time recommended by the profession, but the difficulties encountered in their performance, the danger of hæmorrhage, which cannot be controlled during the operation, the high mortality and the prolonged anæsthesia which is necessary, have been sufficient to cause surgeons to drop them for more rational means. By means of the combined suprapubic and perineal method the circumscribed tumors are more easily enucleated, but it is an operation of gravity

and would be contraindicated in those very cases in which the demand for relief is most desired. And, too, it has been shown that aside from the danger of the operation, it is little better than the palliative measure requiring the frequent use of the sound for many months after.

Dr. Dittel, of Vienna, has removed the whole gland in four cases with one recovery, and very satisfactory results in that case.

Simultaneous ligation of both internal iliac arteries for this complaint (after Bier's method) was done some time since by Dr. Willy Myer, in a man 55 years of age, with very satisfactory results. Six months after the prostate was almost normal in size, and the length of the urethra was reduced from 23 to 21½ centimetres, although there still remained 10 to 24 ounces of residual urine in the bladder, but the patient could urinate at will, which he was unable to do previously. He prefers the double extra-peritoneal incision to Bier's single incision, as old men do not bear intraperitoneal interference as well as young men.

Dr. J. Ewing Mears, in a paper read before the Philadelphia Academy of Surgery, advised the ligation of the spermatic cords for prostatic hypertrophy. He considers it as efficacious and more desirable than the removal of the testes.

In 1892 Dr. J. W. White caused his assistant to do a series of operations for castration upon dogs, with a view of ascertaining the effect of such upon the prostate gland. The results showed rapid atrophy, first of the glandular, and later the muscular structures. He found the average weight of the prostate of a dog to be 35.5 grams. This suggestion of Dr. White's induced other physicians to try the operation upon their senile friends suffering with prostatic hypertrophy. Dr. Ramm, of Christiana, Norway, being the first in Europe, and Dr. Haynes, of Los Angeles, Cal., the first in this country to do the operation successfully. Dr. White followed with three cases, and then a long line of others. The journals are now full of reports of successful cases, and many are favoring it. Dr. White regards the operation as one of the greatest contributions to modern surgery, and has performed it a number of times with satisfactory results.

The effect on the inflamed bladder is immediate and positive, frequently the patient who has been using the catheter for years is able to micturate naturally. The sense of comfort afforded the patient in the prolongation of the interval between the acts of micturition, and especially at night where the interruptions have been hourly, the unbroken rest, the diminished cystitis, the increased muscular control of the bladder, the diminished residual urine, are a few points in favor of the operation. Also the operation can be done by means of a local anæsthetic, if a general anæsthetic is contra-indicated, as is frequently the case in old men, and on account of its simplicity, the patient is not subjected to the long confinement required by the more hazardous operations, prostatectomy or ligation of the internal iliacs.

There is no danger of provoking uræmia, and hæmorrhage is practically *nil*, in castration, which is not the case with either of the other operations. With the testicles already, or soon to become, functionless, and with a contemplation of a long period of suffering, gradually shortening his life, and to be relieved only by death, sentimental objections pale into insignificance and the problem of securing relief without subjecting our patient to a hazardous operation is the only one for our consideration. This is no longer an experiment. Statistics verify the usefulness and certainty of the operation. It stands out as one of the most successful of all operative procedures, and may be considered a specific for hypertrophy of the prostate gland.

But here let me add that due caution and precision in diagnosis is very necessary lest we become too bold in cutting and probably cut the wrong man.—*Nashville Jour. of Med. and Surg.*

DEATHS UNDER CHLOROFORM.

In the first case upon which we comment, which occured on September 11th, the patient was a woman aged fifty-four, who was admitted into the Greenwich Infirmary to undergo an abdominal section. She was carefully prepared for the operation. She was a chronic alcoholic, but physical examination revealed no organic disease. Chloroform was given from folded lint, the chin being supported by the ring finger and the little finger. Old iritis rendered the right pupil irregular; the left was observed to be small and to react to light. At first the patient held her breath, and there was some struggling. The pulse was watched, and was fairly strong and regular. Seven minutes after chloroform was commenced she ceased to talk, and conjunctival reflex went. The breathing was regular. The lint was now withdrawn and not reapplied. Immediately after this, before the operation was commenced, the breathing became stertorous and the face became livid. The tongue was now drawn forward and the chin further up, but the lividity increased, and, although artificial respiration was practised and vensection performed, the patient only gave five or six irregular respirations and then died. Inversion, cardiac acupuncture, nitrite of amyl inhalations, injections of strychnine and of ether were also tried. Two drachms of Duncan and Flockhart's chloroform were used, a little being dropped on either face of the lint alternately. The necropsy showed extensive fatty changes in the myocardium and engorgement of the viscera and meninges with dark

fluid blood. The medical men present regarded the death as due to asphyxia, a conclusion which the details given above lead to. The reason for the overdose does not seem so clear. The use of lint is open to the objection that it is almost impossible to maintain an equable atmosphere of chloroform with it, as each time chloroform is dropped on the patient for the moment includes a higher percentage vapour. It is possible, if the chin had not been held up from the first stertor would have appeared earlier in the case, and so have given warning before the nerve centres had become so deeply narcotised. The name of the administrator of the chloroform is not stated. Another death is reported as having occurred under chloroform at the new Somerset Hospital' Cape Town. The patient, a man aged thirty, was admitted to have an operation performed on his finger. Chloroform was given by Dr. Hofmeyer, the assistant medical officer to the institution, after the patient's chest had been carefully examined. The operation was completed when the patient was noticed to be breathing badly. Half an ounce of chloroform was given from "a mask held near the face." The patient struggled a good deal in going under. When respiration grew embarrassed the pupils dilated and the face grew livid. The post-mortem appearances of fatty visceral changes were present. It was thought that the death was due to syncope. A battery was used over the precordial region and artificial respiration kept up for a long time. This case resembles the one given above, and appears to be one of asphyxia—probably in each case the stage of struggling led to the intake of an overdose of chloroform. The third case we have already briefly noticed, but further particulars have since reached us through the courtesy of Mr. Richard Coates, the house surgeon at the Newport Infirmary. The patient, a man aged forty-seven, was admitted for the performance of a trivial operation on his finger. He had previously taken chloroform well for a similar operation. Having been duly prepared and physical examination showing him free from valvular disease of the heart, although the heart's action was weak, he was given chloroform by dropping it continuously on a towel rolled into a cone. The man was very nervous and apprehensive of the anæsthetic. After two minutes of inhalation he struggled, and an opisthotonic spasm occurred lasting half a minute. During this time no air entered the chest. When the spasm had passed, chloroform was again given, but with great caution. The breathing was now quiet, and the corneal reflex disappeared. The bandage was removed from the hand, when the man suddenly grew pale and then livid. The tongue was drawn forward, the mouth being kept open by the use of a gag, and the head depressed. Artificial respiration was commenced at once, and maintained for three-quarters of an hour, while nitrite of amyl inhalations were given. Air entered the chest freely; the pupils were of medium size, but no heart movements could be detected. About three drachms of Duncan and Flockhart's chloroform were used. Death was undoubtedly due, says Mr. Coates, to "primary heart failure." The heart muscle was found to be fatty. A death under chloroform is further reported from the Oldham Infirmary. The patient, a woman aged forty-three, was admitted to undergo excision of her right maxilla for the relief of cancer. The patient was examined and nothing found which was held to contra-indicate the giving of chloroform. The gentleman who was acting as junior house surgeon, gave choloform, first from lint and then through a nasal tube (catheter in nostril) attached to Junker's chloroform inhaler. Conjunctival reflex had disappeared when this change was effected. The operation was commenced, but the patient winced. The nasal tube was withdrawn and lint reapplied, but it was noticed that the patient had ceased to breath. Artificial respiration was carried on for forty minutes, and faradisation of the phrenic nerves and hypodermic injections were tried in vain. The coroner is reported to have said that while not depreciating the skill of the gentleman who gave the chloroform, he thought in such cases an experienced surgeon should give the chloroform. Unquestionably this case is an instance of operation shock killing through an incomplete anæsthesia acting upon an enfeebled heart. The necropsy revealed marked fatty degeneration.—*Lancet.*

PAPAIN IN CHRONIC GASTRIC ULCER.

Dr. Guthrie Rankin communicates to the *Lancet* a series of ten cases of gastric ulcer treated with great benefit, and in nearly all with curative results, by papin, iron and cannabis indica, administered in pill form. The results were so striking as to make it probable that in such a combination of remedies we have a powerful and useful weapon with which to combat a very intractable disease, and one which, perhaps more than most others, impairs the usefulness of the unfortunate victim and renders his or her life a burden. In all this series, putting on one side the difference of detail required by the idiosyncrasies of each, the plan of treatment has consisted in the exhibition of a mixture of iron, papain and cannabis indica, generally in pill form, and with varying quantities of each of the ingredients. As the large proportion of such ulcerations occur in anæmic patients the *raison d'etre* of the iron is manifest. It may be that in some cases iron is not indicated at all by the existence of any appreciable anæmia; but even then it is probable that the blood is impoverished in some degree, and that the hæmatinic

properties of the drug not only restore this depreciation of quality but also, in a secondary way, promote the healing process at the site of lesion. The cannabis indica is useful as a sedative to the stomach walls, as a controller of its muscular action, and as a prop to its nerve-supply, while it is also fully recognized as a direct promoter of appetite. Lastly, papain, which is the most important of the three, has propably a complex effect on the curative process. It is well known that when a solution of papain is painted over a fissured or ulcerated tongue it rapidly provokes cicatrization. The drug is also of value as a speedy solvent of dead tissue, and to some extent it is credited with antiseptic and tonic properties. Its great use, however, medicinally has hitherto been as a digestive ferment, and its activity in this respect would seem to exceed that of pepsin, pancreatin, or any other known agent. If all these powers of papin be admitted it is easy to conceive a reasonable hypothesis to explain the happy results afforded by it in cases of gastric ulcer, particularly when it is combined with other drugs, such as those indicated, which by their collateral effect assist and intensify its action.

It would seem doubtful whether many cases of so-called irritative dyspepsia may not in reality be due to this definite lesson of the mucous membrane in a latent condition. Hæmatemesis is not necessarily present in every case of even acknowledged gastric ulcer, and in its absence it must always be a matter of difficulty to decide whether the train of symptoms owes its cause to a simple catarrh or to organic change in the substance of the stomach wall. The occurrence of hæmorrhage clinches the diagnosis; but where remedies, useful in cases about which by reason of the hæmatemesis there can be no doubt, give equally good results in allied cases which fall short of the confirmatory evidence afforded by the bleeding, we may assume that such cases may owe their symptoms either to an early stage of the same condition or to an accomplished lesion of the surface so chronic and indurated as to prevent actual loss of blood. By some observers the persistence of pain in patients who have admittedly suffered from gastric ulcer has been ascribed to imperfect movement of the stomach walls consequent upon interference of he resulting cicatrix; but the histories of four cases in the series would rather indicate either imperfect healing or the occurrence of another patch of ulceration as the more probable explanation of the continuance of this symptom.—*Pacific Med. Jour.*

Serumtherapy. — Schaeffer (*Archive générale de Médecine*, August, 1895, and *British Medical Journal*) discusses the present position of the serum treatment, after referring to the researches upon which it has been built up.

(1) *Tuberculosis.*—Richet and Héricourt were the first to treat the disease with serum obtained from refractory animals, but up to the present moment no very good results have been obtained.

(2) *Rabies.*—Serum treatment does not appear to have a great future, as immunization by intensive vaccination gives greater success.

(3) *Pneumonia.*—After referring to the investigations, the author observes that the serum treatment deserves to be considered. The reason that it has not been more generally adopted is probably on account of the difficulty of obtaining the serum from immunized rabbits.

(4) *Enteric Fever.*—Here the clinical application of laboratory facts has not given any very good results. This may be partly due to the length of time between the penetration of the poison and the treatment, and partly possibly owing to mixed infectious.

(5) *Typhus.* — The injection of serum from patients who had suffered from typhus was adopted with good results by Legrain in an epidemic in Algiers.

(6) *Cholera.* — The cholera peritonitis of animals is very different from cholera in man. Behring recently announced that he had obtained a curative serum, but the results have not yet been published.

(7) *Syphilis.*—The serum from the dog and lamb have been employed, and sometimes with good results.

(8) *Streptococcus Infection.*—Animals have been vaccinated against this infection. The serum so obtained has been used in puerperal fever with good results. It has also been employed in erysipelas and angina.

(9) *Cancer.*—The results as yet obtained are insufficient to carry conviction.

(10) *Tetanus.* — Well-marked tetanus is very difficult to cure in animals, and thus it is not to be wondered at that the results obtained in man are not conclusive. The serum, however, provides a valuable prophylactic against tetanus.

(11) *Diphtheria.*—It is in this disease that the serum treatment has registered its greatest triumphs. Where mixed infections exist the results have naturally not been so favorable. The slight accidents caused by the treatment are to be disregarded in view of its remarkable efficacy.

The author then refers to the successful application of the serum treatment to snake-bites. The general results thus far obtained by the serumtherapy promise a successful future for this new method of treatment.—*Univ. Med. Mag.*

Is Colour-Blindness a Case of Atavism. — A recent writer, M. Dubois, throws out a suggestion that will probably be new to most of our readers. It is recognised by astronomers that there are three classes of stars—first, the bluish-white stars, of which Sirius and Regulus are ex-

amples. More than half of all known stars belong to this class. In these stars combustion is at its maximum, and their atmosphere consists of superheated hydrogen and certain metallic vapours. The second class, or yellow stars, has for typical representatives Capella and our own sun. They are less hot than the first class, and the hydrogen lines in their spectrum are not so conspicuous as in the case of the white stars. This class contains about 33·5 per cent of all known stars. The third class are the red stars, and of these Betelgeux is the representative. They are in a later stage of cooling than the second class, and the violet rays are deficient. This class includes about 8 per cent. of known stars. From these known facts it is conjectured that colour-blindness (or insusceptibility to the red rays of light) may possibly be a case of atavism—a "negative inheritance from that time long ago when the eye of our ancestors was not yet sensitive to red rays, which were almost entirely wanting in the white stage of the sun." This is a startling theory, but it suggests a plausible explanation of what is such a mysterious fact—viz., that colour-blindness should so uniformly take the form of insusceptibility to the red rays. Atavism is without doubt a principle of wide application, and may be fairly relied upon to explain many apparently inexplicable facts. We will not venture to pronounce upon the correctness of its application in the present instance, but at least the theory is a bold and ingenious one, and, if accepted, would tend towards that unifying of knowledge which is the aim of science. Colour-blindness, regarded as an isolated phenomenon, is mysterious, but if it be a case of atavism it takes its place in the scheme of ordered knowledge.—*Ed. Lancet.*

New and Speedy Method of Dilating a Rigid Os in Parturition.—At a meeting of the Obstetrical Society of London, Doctor Farrar (Gainsborough) gave the details of two cases in which he had used a ten per cent. solution of cocaine as an application to the rigid os. In one case he had applied the cocaine after endeavoring vainly to relax the cervix by means of chloral, bromide of potassium and morphia, and the most persistent attempts at digital and mechanical dilatation, with and without chloroform. He decided upon incising the os, and used the cocaine to this end. After five minutes he introduced the finger as a guide to the scissors, and, to his surprise, found the os widely dilated. In the second case, a primipara, forty-eight years of age, he used every effort, as before, to produce relaxation, and waited three days before making the application of cocaine, which was immediately successful. In four minutes the os had yielded. He considered the dilatation to be due to the cocaine in both cases. Doctor Armand Routh said that Doctor Dibbs, of Shankin, had recommended cocaine as relieving the pains of the first stage of labor, and that Mr. Head Moore advised cocaine and boric acid pessaries in cases of rigid os. He himself had found it useful. The president, Doctor G. E. Herman, said that two cases were rather a slender foundation upon which to base a conclusion, but if Doctor Farrar's results were confirmed by further experience, he would have made a valuable addition to our obstretric resources.—*The Lancet.*

Treatment of Chronic Hydrocephalus.—Dr. Raczynski concludes as follows with regard to the value of punctures in chronic hydrocephalus: 1. Puncture is not a dangerous procedure, if carried out under antiseptic precautions, and if the fluid is evacuated in small quantities at intervals of several weeks. 2. The employment of permanent drainage is more dangerous than evacuation of the fluid by puncture or even aspiration. 3. Although the results thus far obtained have not been brilliant, the statistics will improve when the operation is resorted to at an earlier stage, before much thinning of the brain substance has occurred. The most difficult question to decide is in what cases and at what period an operation is to be undertaken. It is known that some cases of hydrocephalus get well spontaneously, while others, with marked enlargement of the head, live for many years; on the other hand, if left to itself, the disease often gives rise to the most unfortunate results. By interfering too early the surgeon exposes himself to the reproach of having performed a perhaps harmless, but unnecessary operation; while by delaying it may be inefficient. According to the author's opinion, puncture is indicated in those cases in which in a previously healthy child symptoms of hydrocephalus rapidly develop; if a progressive enlargement of the head is distinctly noticeable; if marked bodily or mental impairment be threatened, in short; if we have everything to gain and nothing to lose.—*Oest. ung. Centralbl. f. d. Med. Wissench.; Internal. Jour. of Surg.*

"The meanest man I know of lives in Kansas," said a St. Louis physician. "He is a farmer, worth a cool hundred thousand. His wife was taken suddenly ill, and he came to town to consult me about her case. I told him that I could not prescribe intelligently without seeing the patient, but he declined to incur the expense of a visit. I charged him $1 for the prescription, and he spent half an hour trying to beat me down to 90 cents. He made me write the prescription in English, then bought the drugs and compounded it himself to save the apothecary's fee. One of the ingredients was capsicum. He thought he had some at home, but was mistaken, and had to come back to town, a distance of four miles, for

it. By the time he had succeeded in saving about 20 cents, and wasting $2 worth of times, his wife was dead and the medicine a loss on his hands. That so wore on him that he fell ill. He took the medicine prepared for his wife, but that only aggravated his malady. When he finally recovered he sued me for $10,000, and was beaten and had to pay costs. He then went before the Grand Jury and tried to have me indicted for malpractice."

This man is about on a par with the fellow who takes a medical journal for several years, and when asked to pay for it drops it back in the office and has it marked "Refused."—*Times and Register.*

In the March number of the *London Medical Recorder* appears the following article, commendatory of a well-known American product: "Listerine is an antiseptic and deodorizing preparation which has for many years been a favorite with American surgeons. Its qualities are due to the essential antiseptic constituents of thyme, eucalyptus, baptisia, gaultheria and mentha arvensis, in combination with which is associated a stated quantity of benzo-boracic acid. Experience points to its reliability in obtaining that condition of asepsis which is the ideal of every surgeon, and it has the distinct advantage of being fragrant and non-poisonous. It does not coagulate serous albumen, and it is thus free from the drawback which so markedly limits the action of such agents as corrosive sublimate, most of which are, moreover, extremely poisonous. Listerine, then, is an agreeable and powerful antiseptic and deodorizer, well adapted for ordinary surgical work, available for internal administration, and useful for gargles, mouth washes and lotions, for which purpose it may be employed without hesitation, seeing that no mishap can occur, even in unskilled hands."

EXTERNAL APPLICATON OF GUAIACOL IN ORCHITIS.—Pietro Pucci (*Gazz. d. Ospedali*) reports the case of a man, aged 66, who had suffered from repeated attacks of ague. Inflammation of both testicles suddenly came on without any apparent cause, and this was followed within two or three days by an acute attack of malarial fever. Sulphate of quinine was given for a week without any effect on the fever, while belladonna was applied to the testicles, equally to no purpose. An ointment composed of 2 g. of guaiacol and 20 g. of vaseline was then prescribed, about 2 g. of it being painted over the scrotum thrice daily, and the quinine being discontinued. The result was that the fever was almost at once subdued, and the orchitis was entirely cured in a week. The immediate effect of the guaiacol was an intense burning sensation at the place where it was applied. This lasted about ten minutes, but half an hour after the application the pain was distinctly mitigated, and finally ceased on the third day of the treatment.—*Med. and Surg. Rep.*

"THE CENTURY MAGAZINE" celebrates its quarter-centennial in its November issue with an "Anniversary Number." The programme that has been arranged for the coming year contains a number of interesting features. Much has already been written concerning Mrs. Humphrey Ward's new novel, "Sir George Tressady," which has been secured for its pages. It begins in the November number with an account of an English parliamentary election. Other and shorter novels are contributed by W. D. Howells, F. Hopkinson Smith, Mary Hallock Foote, and Amelia E. Barr. There will also be contributions from Mark Twain and Rudyard Kipling; a series of articles on the great naval engagements of Nelson, by Captain Alfred T. Mahan, author of "Influence of Sea Power upon History"; three brilliant articles on Rome, contributed by Marion Crawford, and superbly illustrated by Castaigne, who made the famous World's Fair pictures in *The Century;* a series of articles by George Kennan, author of "Siberia and the Exile System," on the Mountains and the Mountaineers of the Eastern Caucasus, describing a little-known people; articles by Henry M. Stanley and the late E. J. Glave on Africa; a series of papers on "The Administration of the Cities of the United States," by Dr. Albert Shaw.

Prof. Sloane's "Life of Napoleon," with its wealth of illustration, will reach its most interesting part,—the rise of the conqueror to the height of his power, and his final overthrow and exile. In order that new subscribers may obtain the whole of this monumental work, the publishers have made a rate of $5, for which one can have a year's subscription from November, '95, and all of the numbers for the past twelve months, from the beginning of Prof. Sloane's history.

We will take subscriptions for *The Century* at $4 per year; or in club with the LANCET for $6.

IN reporting the case of a woman suffering from neoplasm in the stomach, Dr. Ernesto Costa, of Alagna, Italy, says:—"One can easily imagine the intense pain which entirely prevented her sleeping. I tried chloral and sulfonal, and although the latter answered fairly well for a time, it soon became necessary to discontinue it. I then administered bromidia, with the following results:

1. It produced refreshing sleep.
2. It soothed the pain, and thus rendered alimentation possible.
3. Although given in frequent, and sometimes in tablespoonful doses, it never produced any nervous or cardiac disturbance."

Although Pepsin in its various forms will, beyond all question, digest proteids, and is therefore to be relied upon in its particular sphere,

Pepsin is of no Value

IN THE DIGESTION OF STARCHY FOODS.

TAKA-DIASTASE

The Diastatic Ferment Par-Excellence
. . . . for the Relief of . . . .

Amylaceous Dyspepsia

(Amylolytic Power, 1 to 1500)

Is capable, under conditions specified by Junck's malt test, of converting fully 1500 times its weight of dry starch into sugar, in three hours. Or, under the same conditions, Taka-Diastase will in ten minutes (and this rapid test should invariably be employed) convert 100 times its weight of dry starch into sugar.

SUPERIOR TO MALT EXTRACT.

1. **TAKA-DIASTASE** will convert 100 times its weight of dry starch. The best malt extract will not convert more than five times its weight under same conditions.

2. **TAKA-DIASTASE** is absolutely permanent. All malt extracts deteriorate with age.

3. **TAKA-DIASTASE** is in powdered form, dose from 1 to 5 grains. Malt extracts contain a preponderance of foreign inert matters, necessitating large doses.

4. **TAKA-DIASTASE** is free from sugar. Malt extracts are heavily loaded with sugar and apt to exaggerate already present pathological conditions.

5. **TAKA-DIASTASE** is perfectly soluble, and is compatible with other medicaments in neutral or slightly alkaline media. Malt extracts, owing to their viscosity, are difficult to handle and to incorporate with other ingredients in prescriptions.

6. **TAKA-DIASTASE** is economical, owing to its small dosage. Necessarily large dosage renders malt extracts expensive in comparison.

Correspondence upon this subject respectfully solicited.

Parkė, Davis & Co., DETROIT, NEW YORK, KANSAS CITY, U.S.A. LONDON, ENG., and WALKERVILLE, ONT.

THE CANADA LANCET

A Monthly Journal of Medical and Surgical Science, Criticism and News.

☞ *Communications solicited on all Medical and Scientific subjects, and also Reports of Cases occurring in practice. Address,* DR. J. L. DAVISON, 12 Charles St., Toronto.

☞ *Advertisements inserted on the most liberal terms. All Letters and Remittances to be addressed to* ARTHUR A. ADAMS, Gen. Business Manager, 11 Colborne Street, Toronto.

AGENTS.—DAWSON BROS., Montreal; J. & A. MCMILLAN, St. John N.B.; Canadian Advertising Agency, 60 Watling St London. 5 Rue de la Bourse, Paris.

Editorial.

MATRICULATION IN MEDICINE IN ONTARIO.

In our last issue we referred to the serious aspect of affairs relating to matriculation in medicine in Ontario, pointing out the manner in which intending students are handicapped, before commencing their professional studies proper.

We stated that we should in this number give specific cases of what appears to us grievances to intending students of medicine.

A. B. matriculated in Arts, at Toronto University, in 1889. Passed his first year in 1891. Was refused registration in 1895, though in 1889 his matriculation gave him that privilege.

C. D. was accepted for Senior Matriculation at Toronto University in June, 1892. Passed Departmental examination except in euclid and algebra. These he passed at Toronto University in September. Is now an undergraduate in Arts. His examination included every subject required by the Council, but he was refused registration though his standing in the various subjects was exceptionally high.

E. F. shows certificate from the Registrar of Toronto University, of having matriculated in 1895. Was refused registration.

G. H., Certificate of Junior leaving examination, including chemistry and physics, 1890. Senior leaving departmental, July, 1891. Latin endorsed 1895. Was refused registration.

These are but a few of many similar cases that have come under our notice. Many more could be given, if space permitted, to show that men, mentally well qualified to enter the profession of medicine, are being refused entrance to it, because wanting the specific certificate called for by the Council, equivalents being entirely ignored.

What is a matriculation examination? If anything it is a test of the fitness of a man as regards his preliminary education, to enter upon the special studies of the profession he selects for his life-work. Such being its nature, this examination should have nothing arbitrary about it, as regards the subjects it should include, or the regulations laid down for carrying it out; and we think that equivalents should always be allowed.

It is just because these principles have been ignored, and apparently purposely ignored, that the present heart-burning exists so widely, not only among medical students and their immediate friends, but in a much wider sphere.

Why should university matriculation examinations be ignored? They cover the same ground, and are supposed to be sufficient proof of preliminary education to allow a man to enter special courses of study, as for example, law. If any discrimination as to a preliminary test should obtain between medicine and law, the latter should be the more severe. From it are furnished our judges, counsel, and to a large extent members of both Provincial and Dominion Cabinets; men whose office in life would make an education outside the special study of a profession, most necessary. Yet, as we have stated, these men are considered sufficiently educated when they have matriculated at any of our universities, to begin their special professional studies.

Should not our Universities look to it that their matriculation examinations shall not be thus discredited?

When a man has passed his matriculation examination at a university, and subsequently taken the first year's examination, and then is refused registration in medicine, there is something wrong either with that university, or with the regulations as to registration in medicine. Which is it? The university? We trow not. This must be looked to. As matters stand now, a student might have passed his first, second and third years' examinations at Toronto, or any other University, and still be denied registration with our marvellous Council! What a farce to have such arbitrary and absurd regulations foisted upon our province

by a body of men, the majority of whom who could not now, and never could, have passed an examination, one-half as difficult as the matriculation examinations they ignore.

The action of the Council seems to be in the direction of making the matriculation examinations, and all the circumstances surrounding registration, more and more difficult and arbitrary. It is now almost prohibitive for our best class of men. No one will deny that the cream of our profession to day consists of men who have worked their own way.

This class is, under present regulations, practically excluded. Why should this be? To make a close corporation—a guild of the medical profession?

Certainly the sons of our most wealthy citizens may attain after years, to the required standard, with the especial certificates insisted upon. But everyone knows that in Canada our best men are self-made men, not only in medicine but in all walks of life. Prohibition, we believe, was actually discussed at the Council last June, from the fact that the ground taken was, that an effectual check must be put to the yearly influx of young men into the profession.

Our young men, and many of the best of them, are *forced* out of the province for their professional training Witness, one American college where a large proportion—nearly half the students—are this year from Ontario. Are we in a position to afford such a drainage of brain power?

It seems certain that the regulations will have to be re-arranged, and it would be much better that this should be done by the Council than that the Legislature should be obliged to take the matter in hand.

MORAL DEGENERATION.

It is a well-known fact that the health and strength of a community may be judged by the conditions of its morals, and the morals of the literature of the period. For the mind to be healthy, a like condition of body is necessary, the old maxim, *mens sana in corpore sano*, being a trite recognition of this fact.

When a moral degeneration sets in, the existence, individual and national, is endangered.

As long as ancient Rome had a virtuous and hardy population to draw upon for her legions, her arms were ever victorious and wealth flowed into her coffers; but wealth brought luxury, and luxury in a few generations was followed by effeminacy and moral degeneration, and Rome succumbed to the hardy warriors of the north.

History ever repeats itself, and cautious observant scientists of the present day are viewing with alarm the obvious signs of degeneration so pointed out so skilfully by Max Nordau.

Nowhere is this better seen than in the meretricious, erotic and hysterical literature so fashionable in the larger centres of civilization, going hand-in-hand with the use of narcotic stimulants, and the vice of secret drinking—especially among ladies of the highest station—as every medical man knows.

On every side we see books written by men and women evidently the victims of sexual aberration, demanding in exalted, bombastic language, so ominous to alienists, the withdrawal of the barriers hampering "down-trodden woman," making pleas, not for the elevation of man's morals to a higher standard, but licence for woman to lower hers to the man's.

The "woman who did" smiles brazenly at the "picture of Dorian Gray"; and "Dodo" wearing a "yellow aster" upon her manly breast, looks with pity upon Madame Sarah Grand's "Cow-woman," who has the bad taste to bear children.

There can be no doubt that literature of such a variety is capable of doing untold harm, especially to weak-willed hysterical subjects, already tending to "degeneration."

The remedy must be drastic, and ridicule promises to be most successful.

Cervantes in "Don Quixote" struck a deathblow at knight-errantry, by his delicious wit and cutting satire. Dean Swift in "Gulliver's Travels" also materially benefited his generation.

There are some writers at the present day endeavoring to stem the tide, "A Green Carnation" doing much to overcome the yellow aster. While "The Woman in Lilac," by Lincoln Hunter, a Canadian writer rapidly coming to the front, will undoubtedly, if as widely read as it deserves to be, bring the "shrieking sisterhood" to their senses, if satire, and clever caricature of

the leading heroes and heroines of *fin de siècle* literature has any effect.

LODGE PRACTICE.

We extremely regret that an important and interesting communication from Dr. R. Ferguson, of London, which should have appeared in our last issue, was delayed at the publication office, and did not see the light at our editorial office until after we had gone to press. Fortunately, however, we had knowledge of what our professional brethren of London were doing, and an editorial appeared in line with their views, with which we are heartily in accord. Though it is from an editorial standpoint, somewhat a matter of ancient history, with which the CANADA LANCET does not deal, we give the text of the agreement, signed by all but two or three of the doctors.

"We, the undersigned medical practitioners of the City of London, hereby severally covenant and agree, each with the other, that on and after the 1st day of January, 1896, we will not engage in, or contract our services for, lodges or club practice.

"And we do hereby further severally covenant and agree, each with the other, that any party to this agreement who violates the same will subject himself to the payment of the sum of sixty dollars, as liquidated and ascertained damages for each breach, and that the said sum may be sued for in the name or names of any one or more of the other parties to this agreement, in the First Division Court of the County of Middlesex, the jurisdiction of which Court we hereby admit and consent to; and that upon any sum being recovered in such action, the same shall be applied to whatever object a majority of the parties to this agreement may decide upon.

"It is further agreed and understood that this agreement shall not be binding until it is signed by all the medical practitioners in the City of London.

"In witness whereof, we have hereunto set our hands and seals, this 23rd day of September, 1895.

"Signed, sealed and delivered, in presence of."

This has now been signed by 41 out of 46 doctors in the city.

THE LIMITS OF THE PHYSICIAN'S DUTY TO THE DEPENDENT CLASSES.—James W. Walk, M.D., says, *Am. Med. Surg. Bull.* The physician, a man and a citizen, owes a great duty to civilized society, a duty which is conditioned upon his special knowledge. Acquainted as he is with the important laws of heredity and the reciprocal influence of mental and physical states, the responsibility rests upon him to lead the community in which he lives to a higher civilization and to better modes of life. He should be a teacher of the people, and not only by training men to cure disease but, pre-eminently, a teacher of preventive medicine, that department of our science now almost new, but destined to become its pride and glory.

The question of his duty in regard to medical charities is much less simple. Here also an obligation rests upon him, as, for instance, in cases of sudden accident, etc. But this is a very small part of the so-called "charitable" work now thrust upon the profession. It is the common notion that the doctor should treat, free of charge, all the dependents in his neighborhood, and should also give his services to both public and private institutions. Institutions supported out of the tax-rate are, in no proper sense, charities. Their cost is levied upon all the citizens, in proportion to their taxable wealth, and there is no call for any one to serve them gratuitousiy. All others are paid for sheir services, but the physician is supposed to act from some principle not applicable to other sensible men.

Outside of the institutions supported by public taxes comes the yet wider field of the private charities. In these institutions it is right and fair that physicians should make contributions to them in service, if they see fit, but this right has its limitations. Free medical service to come within the definition of a wise and judicious charity should be rendered to those only who are unable to pay for it. To give it to others involves two wrongs: the first, to the younger men of the medical profession who ought to have turned over to them those patients who are able to pay only small fees; the second, to the community, by the encouragement of pauperism and the undermining of independence.

Twelve years ago a somewhat thorough investigation of the dispensary system of the city of

Philadelphia was made, and quite recently the same ground has been traversed with a similar result by a well-known physician of that place. In thirty-two free dispensaries there were treated in one year one hundred and sixty-one thousand and twenty-nine cases, which was about twenty per cent. of the entire population of the city, or one-fifth of all the people. Carefully compiled statistics show that, in Philadelphia, the actual pauper class does not exceed one per cent. of the population. If medical men do all of this vast work from charitable motives, certainly they need to be converted to a more judicious and discriminating doctrine of charity. If this service is rendered from selfish motives, the advantages derived from this free service have been greatly over-estimated. No medical man should indulge the pleasing delusions that the patient he treats at the dispensaries suppose him to be doing a noble and philanthropic act, and putting them under a corresponding obligation. In their view, the accommodation is generally the other way.

The valuable experience that may be gained by dispensary practice is often lost from lack of time to make a really scientific examination.

If, then, the duty of the physician to the dependent classes and also considerations of self-interest demand the restriction of free medical service, it is obvious that the existing system should be radically changed. Efforts made to restrict free aid to the indigent have, thus far, in almost every instance, failed through the opposition of the physicians themselves, who desire to have largely attended clinics. The very enormity of the evil may, however, lead to a powerful revulsion of sentiment, when means will readily be found to discriminate between the poor and those able to pay for treatment.

THE SERUM TREATMENT OF MALIGNANT DISEASE.—When Coley's paper upon the cure of malignant tumors, *Ed. Ther. Gaz.*, and particularly sarcomata, as a result of infection with erysipelas, appeared, and when he apparently showed that similar results were at times obtained by injections of sterile products of the erysipelas streptococcus, it seemed that at least modern therapeutics were about to lead to the prevention and cure of the one disease against the extension of which we are as powerless to-day, barring the possibility of more thorough removal, as were our predecessors two hundred years ago. The further development of this method of cure in the production of the serum from animals artificially immunized by erysipelas infection was a natural step and one strictly in accord with modern scientific teaching. Satisfactory results in the treatment of sarcomata by these serum injections have been reported by Coley and Emmerich and Scholl claimed to have cured both sarcomata, and carcinomata. Reports from other surgeons of recognized standing are singularly scanty. It is worthy of note that discredit has been cast upon the cases reported by Emmerich and Scholl by the surgeon in whose wards their experiments were conducted, he holding that their statements of improvements were in some cases premature and in others inaccurate.

Senn, after a brief review of this subject, relates his experience in the *Journal of the American Medical Association*, Vol. xxv., No. 24, 1895. Nine cases are reported, of which six were sarcomata and three carcinomata. The author says that in these cases, after fair trial, the treatment resulted uniformly in failure. The remedy failed to effect even a temporary improvement.

In the discussion which followed the reading of this paper, Dr. Coley stated that since May, 1891, he has treated eighty-four cases of inoperable malignant tumors with the toxins of erysipelas and the bacillus prodigiosus. Of forty-three cases of sarcomata so treated, eleven were successful. One patient has remained well for nearly four years, two for more than two years, and two for one and a half years. One has had a recurrence.

In Philadelphia erysipelas toxins have been tried by a number of surgeons and uniformly without benefit. These toxins can be readily obtained, the application of the method is not difficult, and it is fair to infer that they have been used in many unreported cases. In the interest of science in general, and particularly in the interest of the hopeless cancer patient, it is highly desirable that every case, whether successful or not, should be reported in full detail. At present it looks as though the antitoxin serum treatment of cancer must be ranked with all serum therapy,—*i. e.*, that of tuberculosis, of tetanus, of diphtheria, and of syphilis,—as still in its purely experimental stage.

FAITH HEALING.—Christian Science (*sic*) not being quite a dead letter among us, the following, *Lancet* will be read with interest.

An inquest was recently held upon the body of a girl aged seventeen, who died in Brixton of acute tuberculosis and peritonitis from a perforating gastric ulcer, having been very ill since last Easter. She had no medical advice because, according to the evidence of the woman in whose house she had stayed, "she had trusted in the Lord to heal her without medical aid." It is useless to point out to people of this cast of mind the falsity of their theological reasoning, but we do think that the legislature, which takes care to prevent people jumping off the Monument or going on to ice too thin to bear their weight, might step in and prevent peculiar people and faith-healers from murdering their children by neglect. We should be the last to deny the power of faith, but, as a recognized authority says," faith without works is dead," and it is a canon of theology that the Almighty works by means, and those means humanity is bound to use. The *New Science Review* for July contains an article entitled "Has Mental Healing any Scientific Basis?" We do not quite understand this question, but we gather from the article that help need not always come from without, but there is a broad field for "auto-suggestion and systematic concentration with happy results." The ways and means to become properly auto-suggestive is as follows: You say mentally to yourself—even mechanically at first—until the habit is formed, "I [the real ego] am well. I am strong. I am pure. I am perfect. I am one with the Divine Spirit of Wholeness." The next step is, "To ensure progress special times and seasons should be set apart for focalized thought and affirmation. . . . At times when the objective world, with all its cares and anxieties, may conveniently be barred out, the full glare of the consciousness is turned upon the divine ideal within, which thereby gradually becomes graphic and ruling." It is evidently quite easy to become a mental healer, but we seem to remember that this prossess is not new. There was once a sect in the Eastern Church called the ———— who by steadily gazing at their navels were at length rewarded with a sight of the light (created or uncreated) which shone at the Transfiguration. This method, we suppose, is what Mr. Henry Wood, the writer of the article in question, calls "keeping company with his inner ideal." However, he does not seem to have much faith in the process he recommends, for he concludes: "As related to illnesses, prevention is the end to be sought, so that in time cures may be unnecessary." If any one by "keeping company with his inner ideal" can cure a gastric ulcer he would be a most valuable addition to our present therapeutic agents.

THIRST AFTER CELIOTOMY.—This distressing symptom which is so troublesome after operation on the abdomen *should* be overcome by the method of Dr. Wm. Hamistan gives in the *Am. Jour. of Obstetrics.*

The patient should have the usual preparation for celiotomy—*i.e.*, diet, daily baths, cathartics, etc. For three days prior to operation, order the patient to drink one pint of hot water an hour before each meal and on retiring, thus drinking two quarts of water each twenty-four hours, the last pint to be taken three hours before the time set for operating. Do not omit to give the water the day previous to the operation, while the patient is restricted to a limited amount of liquid nourishment and the bowels are being unloaded. We thus restore to the system the large loss of fluid occasioned by the free catharsis, and we have the great satisfaction of seeing our patient pass through the trying ordeal of the first thirty-six hours after operation in comparative comfort, with no thirst, a moist tongue and active renal function, represented by an excretion of from twenty-eight to fifty fluid ounces of urine during the first twenty-four hours, cathetrization being seldom necessary. This is in keeping with the full character of the pulse noted.

The above detail I have recently carried out in twelve cases. To eleven chloroform was administered, to one ether. The time required to complete operation varied from ten to fifty-five minutes. Whether the case was one of sclerotic ovaries or a pus case with universal adhesions of all the pelvic structures, the result has been uniform and highly satisfactory, thirst being allayed and excretion stimulated (a very essential condition to prompt recovery).

I believe this method will prove to be efficient in the hands of abdominal surgeons generally, and I publish it early with all confidence that the

twelve cases I have had will soon be fortified by the reports of many hundreds, and that by it we may avoid a condition that is and has been distressing alike to patient, surgeon and nurse.

Hysteria and, Degeneracy.—At the French Congress of Alienists held in August, *Dublin Med. Jour.*, in the discussion on hysteria in its relations to insanity, Joffroy said, concerning hysteria and mental degeneracy, that these are frequently associated, leading to the suggestion that the one is a modification of the other. Common origin is suspected from a common character. Hysteria and degeneracy will thus be two clinical syndromes due to heredity, and characterized by the penetration of subconscious ideas into the lessened or effaced field of consciousness. From this follow these propositions: Hysteria and degeneracy often coexist in the same patient, and have the same etiology—heredity. They both reveal themselves by an analogous mental degeneracy, and this explains the deformities of character met with in both; and the following are the conclusions of Joffroy:

1. Hysteria is one of the forms of mental degeneracy.

2. In its limits, hysteria is confused with certain degenerative manifestations, without its being possible to fix between them any definite limits.

3. Clinically, the individuality of hysteria should be preserved as much as possible from the other forms of mental degeneracy.

4. Therefore, the term hysterical should be applied only to the phenomena of the complete or partial attack, or to manifestations that are clearly hysterical, like spontaneous somnambulism, or to those directly connected with hysteria.

Nasal Epilepsy.—The fifth nerve is responsible for probably the largest number of reflex disturbances to which the body is liable, and the chief of these reflexes can be traced to the ear, nose, or teeth, *Med. Times.* We have often commented in these columns upon these phenomena, and have from time to time cited published cases. Siethoff has lately reported two cases of reflex epilepsy of nasal origin. Both cases were men, their respective ages being thirty-eight and thirty-three. The first suffered for twenty years with epileptic attacks, the fits growing longer and harder each year. Rhinoscopy showed hypertrophy of the inferior and middle turbinated bodies, and of the crest of the cartilaginous septum. An application of a ten per cent. solution of cocaine averted a threatened fit, and the treatment of the nasal mucous membrane with the galvano-cautery finally caused the complete cessation of the epilepsy. The second case presented many similar points. Slight fits occurred for a long time, getting worse year by year. The attacks were always accompanied by an olfactory aura. The right inferior and middle turbinates were hypertrophied and pressed against the septum, causing entire occlusion of the nostril. The result of treatment was eminently satisfactory. Cases such as these force upon us how defective are our methods after all. We wonder how many cases of epilepsy and other reflex nervous phenomena are being every day treated empirically when a minute's examination might set things right. It is, of course, impossible for every practitioner to be replete with special knowledge—*ars longa, vita brevis est*—and as long as the medical profession continues so disgracefully underpaid, it cannot be expected that every patient will be exhaustively examined with a view to diagnosis.

Fistula in Ano.—The danger of operating for fistula in ano is not so great from hæmorrhage as in operating for piles, *Matthews' Quarterly.* The field is clear and all vessels can be more easily secured. Then pressure can be more easily applied. But a most formidable danger confronts us in the improper division of the sphincter muscle, resulting in incontinence of feces. Should it occur after an operation, the patient will never cease calling down curses upon your head. Whatever may be your eagerness for a quick recovery of your fistulous patient, never divide the sphincter muscle but once at the same sitting. I am more and more convinced that the fault is that we cut too little rather than too much in operating for fistula, yet the injunction should never lead us to cut this important muscle too much.

Then, again, a surgeon may think that a fistulous tract that runs up the mucous membrane for several inches is of small importance and easily divided. Let me warn you against such a procedure. It is accompanied by a great risk of hæmorrhage, and of such nature as would be

difficult to control. Whenever such an operation is deemed necessary, be prepared to *plug* the rectum just as soon as the cut is made, and don't wait to see whether hæmorrhage will result or not. I would never leave the patient before this precaution was taken.

THE WATERLOO AND WELLINGTON MEDICAL ASSOCIATION held their regular meeting in Berlin, on the 8th of November. Dr. Webb, of Waterloo, read a very thorough paper, his subject being "Practical Life Insurance Examinations." He laid special stress upon the necessity of systematic and conscientious examinations. During the discussion the question of fees was brought up, and the dollar fee for lodge work was rather roughly handled.

Dr. Brock, of Guelph, gave notice that he intends introducing a by-law at the next meeting, "That no member of this Association shall examine an applicant for life insurance for a fee less than four dollars."

Dr. Necker's paper, "Report of Cases in Practice," was held over for the next meeting, in Guelph, Friday, 3rd January, 1896.

ST. JOHN AMBULANCE ASSOCIATION.—Lieut.-Gov. Kirkpatrick presided at a meeting in the Canadian Military Institution 25th ult. at which a branch for Ontario of the St. John's Ambulance Association was formed. This society is the ambulance department of the Order of St. John of Jerusalem in England, which has its headquarters at St. John's Gate, Clerkenwell, which is now all that remains of the ancient priory, built in 1504, and recently restored. This order is a revival and continuation of the old Hospitaller Order of Rhodes and Malta. Branches of the order are established in Australia, South Africa, West Indies, Madras, Bombay, Ceylon, Hong Kong, New Zealand and Halifax.

The following officers were elected: President, his Honour the Lieutenant-Governor; Vice-presidents and members of Council, Sir James Grant, K.C.M.G., Ottawa; Senator Gowan, C.M.G., Barrie; Judge Weller, Peterboro'; Sheriff Murton, Hamilton; Rev. Canon Richardson, London; Lieut.-Col. Macdonald, Guelph; H. Corby, M.P., Bellville; Judge Hughes, St. Thomas; Dr. R. T. Walkem, Q.C., Kingston; Wm. Mulock, M.P., Toronto; Surgeon General Bergin, M.P., Cornwall; Henry Cawthra and W. R. Brock, Toronto; Medical Director, Deputy Surgeon-General G. S. Ryerson, M.P.P.,; assistant secretary and treasurer, Dr. Campbell Meyers; examiners, Drs. Strange, Grasett, King, Stuart, Dame, Nattress, Elliott, Meyers, W. H. B. Aikins and O'Reilly.

It is intended to form local branches through the province. The formation of these centres is being promoted by Dr. Ryerson, Deputy Surgeon-General, an honorary associate of the order of St. John.

A FIFTY CENT CALENDAR FREE.—The publishers of *The Youth's Companion* are sending free to the subscribers to the paper, a handsome four-page Calendar, 7 x 10 in., lithographed in nine colors. It is made up of four charming pictures, each pleasing in design, under each of which are the monthly calendars for the year 1896. The retail price of this Calendar is 50 cents. New subscribers to *The Companion* will receive this beautiful Calendar free and besides, *The Companion* free every week until January 1, 1896. Also the Thanksgiving, Christmas and New Year's double number free, and *The Companion* fifty-two weeks, a full year to January 1, 1897. Address, *The Youth's Companion*, 195 Columbus Ave., Boston.

CHORDEE.—*(Ricord):*

℞—Ext. opii, ... gr. j.
Camphoræ, ... gr. x.
Ol. theobrom., ... q. s.
M. et ft. suppository No. 1.
Sig.—Use at bedtime.

INCONTINENCE OF URINE.—*(White):*

℞—Sodii benzoatis, } of each, . gr. xx.
Sodii salicylatis, }
Fld. ext. belladonnæ, ... gtt. ij.
Aquæ cinnamomi, ... ℥ iv.
M. Sig. — A teaspoonful four or five times daily.

IODIDE of potassium, *Med. Sum.*, added to ammonium chloride cough mixtures, increases the secretion and relieves the hard cough in subacute bronchitis.

N. MACL. HARRIS, of Toronto, has recently passed for the L. R. C. P., London.

Practical Dietetics; with Special Reference to Diet in Disease. By W. Gilman Thompson, M.D., Professor of Materia Medica, Therapeutics, and Clinical Medicine in the University of the City of New York; Visiting Physician to the Presbyterian and Bellevue Hospitals, New York. Large octavo, 800 pages, illustrated. Cloth, $5; sheep, $6. Sold by subscription only. New York: D. Appleton & Co.

The subject is one which does not receive much attention either in medical colleges or in the standard works upon the Theory and Practice of Medicine; the directions given in the latter being of a very general and vague character, and in the former it is dismissed in one or two lectures. In hospitals and in the training of nurses too little attention is often paid to the subject, while in works on food and dietetics the practical application of dietetics to disease usually receives but slight notice. This work is intended to remedy these shortcomings, and to furnish to the practitioner a text-book containing instructions as to the appropriate diet in diseases which are influenced by right feeding.

Beginning with the elementary composition of foods, the author next classifies them, and takes up in succession force production and energy; the force-producing value of the different classes; stimulating foods; their economic value; a comparison of the nutritive properties of animal and vegetable foods, and vegetarianism. The classes of foods are next considered, including water, salts, animal and vegetable foods, fats, and oils. In the section on animal foods much attention is given to the subject of milk in all its forms—pure, adulterated, prepared, etc.—in accordance with the great importance of the article so commonly used. Stimulants and beverages, with their good and ill effects, their comparative values, administration, and varieties, are fully and carefully considered.

The various methods of cooking food are given, with the effect of each method on the different classes; also the means used for condensing and preserving foods. The author considers the general relations of food to special diseases; those that are caused by dietetic errors and the administration of food for the sick, giving the necessary rules as to method, time, etc.

The feeding of pregnant women, nursing mothers, infants, and young children constitutes a very important part of the work, and an appendix contains receipts for invalid food and beverages suitable for fevers and convalescence from acute illness.

A Manual of Diseases of the Nervous System. By W. R. Gowers, M.D., F.R.C.P., F.R.S.; Consulting Physician to University College Hospital; Physician to the National Hospital for the Paralyzed and Epileptic. Second edition, revised and enlarged. Volume II. Diseases of the Brain and Cranial Nerves, General and Functional Diseases of the Nervous System; with 182 illustrations, including a large number of figures. Octavo, pp. 1069; cloth. Price $4. Philadelphia: P. Blakiston, Son & Co. Toronto: Carveth & Co.

The author explains the lateness of appearance of the second volume of his work, by the necessary revision and incorporation of the most important results of the investigations of the past five years. A good deal of new matter has also been added—to the extent indeed of about a hundred pages.

To those of our readers who have been familiar with Gowers' work, nothing more need be said, than that he has brought the present edition fully up to the present time, and in such a way as he alone could do it. To those who have not read it, we may say that for conciseness, clearness of explanation and completeness, the work is the best in the English, and, we believe, in any language. To the practitioner and student the work is simply invaluable.

Modern Materia Medica, with Therapeutic Notes. For the use of practitioners and students of medicine. By Dr. Otto Roth. Seventh edition. Revised by Dr. Gregor Smith, Würzburg. One volume of 467 pages, octavo, muslin binding. Price $2. New York: William Wood & Co. Toronto: Carveth & Co.

The present revision brings the work up to the present time, including the many new drugs which now form so important a part of the practising physician's pharmacopœia. It is full of prescriptions, and the very clear and practical style in which it is written cannot fail to make it of the greatest assistance to the practitioner. It embodies just such matter as would be particularly useful to a final student, and so arranged as to be easily used.