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Original Communications.

HOME AND FOREIGN CLIMATE IN CONSUMPTION.*

Prepared for reading at 15th Annual Meeting of Ontario Medical Association, June, 1895. By EDWARD PLAYTER, M.D., Ottawa.

There are three principal points to which I propose to draw attention in this brief paper,—namely: the empirical and uncertain nature of a change to a different climate as a remedy for consumption; (2) acclimatization; and (3) the easy dispensability of the remedy.

(1) That change of climate in the treatment of consumptives, in the present state of our want of knowledge of the influences and effects upon the human

* (Mostly Extracts from Original Manuscript of a Work on Consumption, now in Printers' hands for Publication.)

functions of the many and various atmospheric conditions which go to make up climate, is a very uncertain and empirical remedy, I shall not here enter into a discussion to prove, but simply quote the following few words from two recent authorities. H. S. Davis, jun., A.M., M.D., of Chicago, in a recent work on Consumption, remarks: "Often a choice of climate is no easy matter. The selection is frequently made easier by watching the effect, in a given patient, of different kinds of weather." Frank S. Parsons, M.D., editor of the *Times and Register*, in a recent paper, "A Practical Theory and Treatment of Consumption," says: "The only way to test a given location for a phthisical person to reside in is for such person to test the various locations;"—that is, personally, by a brief sojourn in each.

(2) Acclimatization is a physiological process, the possible injurious effects of which upon the already deranged con-

stitution of the consumptive, it appears to me, are too commonly overlooked. It is very well known that healthy, vigorous persons are sometimes injuriously affected by a change of climate. Hence we can never be certain that benefit received will fully compensate for any detrimental effects the altered conditions may produce upon the organism. Parkes writes: "How soon the body when it has become accustomed by length of residence for successive generations to one climate, can accommodate itself to, or bear the conditions of, the climate of another widely different place, is a question which can only be answered when the influences of climate are better known. The hypothesis of 'acclimatization' implies that there is at first an injurious effect produced, and then an accommodation of the body to the new conditions. Probably we do not know sufficiently the physiological conditions of the body, under different circumstances." The effects on the human body of a change to a great elevation, when not made gradually, are remarkable and sometimes alarming.

(3) Is a change to a warm or an elevated climate in the treatment of consumption necessary? In my opinion, based on a somewhat limited experience, yet a good deal of observation and study, it is very rarely necessary, although a change of locality, as from a heavy, damp soil to a dryer perhaps more elevated one, or from an urban to a rural, is frequently desirable and essential. In certain advanced, incurable cases, doubtless life may be rendered more comfortable and perhaps prolonged, by residence in a warm, equable, and, in laryngeal cases, humid climate. And again, in a very few cases, such, for example, as that of a young man in a pretubercular condition, or in the early stage of the disease, who, indifferent about his health, will not attend properly to the practice of lung gymnastics, and

who has the means, and no objection, to go from home, a change to an elevated region, where the rarefied atmosphere with its small bulk percentage of oxygen will *compel* him to exercise a kind of lung gymnastics, may be advisable.

Time and science, theory and practice, have at length taught us that what the consumptive needs, first of all,—indeed, last of all, and always,—is *more pure air*, or, to be more definite, more oxygen, and this element in its best, most vitalizing condition, for it evidently has several conditions. This need, this essential, cannot be best supplied by a warm atmosphere nor by a rarefied or thin atmosphere.

The consumptive, whether from heredity or habit, is an imperfect breather. In the development of the soil for the tubercle bacillus an imperfect respiratory function plays the chief part. In the development of the soil for tubercular phthisis, all other causes are remote, and contribute to this one—an imperfect respiratory function. The air cells or air chambers of the lungs, and the blood and tissues of the body, have become clogged with the debris or products of imperfect tissue metabolism from want of oxygen; while it seems not improbable that in the decomposition of the accumulated waste, not only are inorganic substances formed which constitute food for the bacilli, but also possibly organic toxins, which transform non-virulent saprophytic bacilli into virulent pathogenic infections; an analogue of which we find in respect to a like transformation in the bacillus coli communis, from the toxins of faecal matter. In the rarefied air of high mountains, with perhaps, too, the climbing, there is great and forced expansion of the lung membrane,—the subject is compelled to actually gasp widely for breath, expanding the lungs to their utmost, the whole function of breathing is aroused, the air chambers of the remotest recesses of the apex are opened

up, and the walls of the chambers everywhere attenuated and purified. Thus an improved breathing function is established, while there is in the expansion full compensatory action, perhaps for the time more than full, for the thin atmosphere, and so not infrequently improved general health follows.

As already intimated, however, and as we all know, great elevation is not necessary for the cure of consumption. Not only is this the case, but the indications can be better fulfilled at much lower levels where the proportion of oxygen in the same bulk of air is much greater.

The benefits which may be sometimes derived from compressed air—air containing an excess of oxygen—in the treatment of consumptives need not be dwelt upon here, nor need the fact that at sea, at which level the proportion of oxygen in the atmosphere is greatest, the mortality from this disease among sailors between the ages of 15 and 45 has been found to be sixteen times less than on land,—a fact not attributable alone to the purity of sea air.

There is no doubt whatever, as Davis, already quoted, in a later work, on Diseases of the Lungs, Hearts and Kidneys, remarks: "That the chest can be gradually enlarged by lung gymnastics quite as much as by high altitude life, provided only one will be sufficiently persevering." Dr. Davis in no measure opposes altitude;—on the contrary, he favors it. And, furthermore, not only can the respiratory function be quite as effectually developed and improved by suitable gymnastic exercises at home or in one's native climate, but increased and improved more safely. There is considerable risk in conveying persons somewhat advanced in the disease, with hæmorrhage, directly to a great altitude; with proper and careful lung expansion at home, no risk whatever.

The purer atmosphere of great elevations is an important condition. But in large regions of Canada we have a pure and highly ozonous atmosphere at all seasons, while over our snow-covered expanses during many months of the year is an atmosphere practically germless, or about as near to it as is sea or mountain air,—a fact which seems to be entirely overlooked.

Respecting the cold of our Canadian climate, the colder the air breathed, the more oxygen it contains, and the more invigorating it is, while at the same time, on becoming warmed in the lungs, it expands, in a proportionately greater degree, the air chambers. Consumptives here, who in nearly all cases have acquired a predisposition to the disease by means of indoor occupations or a habit of housing in overheated rooms, may be almost without exception, and notwithstanding the cold, gradually habituated back again to an outdoor life. By proper attention to the skin, suitable clothing, and, especially, by means of the cool bath, the most susceptible of such patients may be gradually inured to living outdoors, almost constantly at all seasons; more easily if the inuring process be commenced in the autumn, although it may be commenced at any time. Patients advanced in the disease, who had not been out doors for months, because, as they said, going out made their cough worse, I have induced to go out and spend much time out, in cold weather, sometimes with a little inconvenience at first, always with much permanent after-benefit; and never once have I known anything like serious harm to follow, the chief points to be attended to being, the daily cool bath, abundance of clothing, especially when exercise cannot be taken, and breathing through the nostrils.

The sudden changes from heat to cold in our Canadian climate, while invigorat-

ing to persons in fair health, are sometimes trying to the already debilitated consumptive; although most consumptives bear great changes of temperature wonderfully well if not directly exposed to strong drafts of air. Such changes, however, are less marked and sudden here than they are at high altitudes. At Davos (Switz.), for example, less than 6,000 feet above sea level, the thermometer has registered 166° F. by day in the sun, and fallen at night to 16° F.—a “drop” of 150° F.

In conclusion it may be said, then: we have at our own doors, in Canada—in Ontario and Quebec,—probably some of the best localities for consumptives on this planet; and it is my opinion that, not in one case in a hundred need there be a change to another climate by any consumptive, being a native Canadian, in whom there is a prospect of recovery.

Of special localities more particularly favorable to this class of persons there are several in these provinces. Muskoka has acquired a reputation for being a highly favorable place for consumptives. It is sufficiently elevated, has a pure, invigorating atmosphere, and a large number of sunny days.

The ideal place of all for promoting health and vigor, so far as I have been able to learn, and which I beg leave to here very briefly describe, is a somewhat limited locality in the Gatineau Mountains, a few miles from Ottawa, in the neighborhood of Chelsea station and Kingsmere and Kings Mountain—Kings Lake Mount, and, it may well be named, Kings Plateau. It is about 1,000 feet above the sea level and 500 above the adjoining country, the mountain side rising rapidly, somewhat precipitously, although providing for a good driving roadway. Hence it affords the best of drainage and freedom from malaria, while any possible atmospheric impurities gravitate to the lower strata of air. It is most pleasantly

exposed to sunshine by a southeastern aspect, while behind it, protecting it from northern and western blasts, is a well wooded ridge towering paternally and kingly up 300 feet higher. According to the meteorological record of the locality, the number of sunny days is about one-sixth greater than in Toronto and one-third greater than in Montreal. The air is of the purest and most exhilarating character, and Kingsmere is a very pretty, though small, body of clear spring water, and speckled trout. From this plateau one may view about 4,000 square miles of a beautiful country—from 40 to 50 miles in each of the three directions—to the right, to the left and in front, hill and dale, cultivated fields, meadows and woodland; the Ottawa, Rideau and Gatineau rivers, their valleys, windings and waterfalls; with our beautiful capital city, built on the hills at the junction and mingling of the three waters, and our stately Parliament buildings, as if silently watching their tumultuous meeting, a very Greek (or Persian) *Παραδεισος* (park or paradise) of health and beauty.

THE ETIOLOGY AND TREATMENT OF INFLAMMATIONS OF THE UTERINE APPENDAGES.

Dr. Augustin H. Goelet, of New York, read a paper on this subject at the recent meeting of the American Medical Association at Baltimore, in which he stated that the contention was not that these inflammations of the tubes and ovaries can always be cured, but that it is frequently possible, and unless immediate operative interference is absolutely demanded, the patient should be given the chance, and the attempt should be made before submitting her to a radical operation. This he thought particularly important since treatment directed toward attaining this end did not militate against a subsequent

operation for their removal should it become necessary, but, on the contrary, improved the chances of an ultimate successful result. He called attention to the fact that when once removed these organs cannot be replaced, and asked the question if it was not a serious error, in the light of recent developments in the etiology and pathology of the inflammations of the appendages, to remove these organs without previous attempt at a cure or removal of the cause which may be operating to maintain such condition. It may be denied that diseased tubes and ovaries are removed unnecessarily, but it must be admitted that they are too often removed for disease which is amenable to patient and persistent treatment, or which may be cured by a minor surgical operation, involving no risk, such as curettage or repair of a lacerated cervix.

If these cases are submitted to careful treatment instituted for the purpose of clearing up the surrounding exudation and favoring drainage through the natural channel (the uterus), in many instances the necessity for a radical operation would be removed, and the woman would be restored to a life of usefulness and happiness.

In corroboration of these views, he reported 12 selected cases which had come to him from other gynæcologists, who believed that removal of the diseased organs was the only method to be adopted for restoration of their health, yet these patients recovered completely without the loss of these organs.

The writer stated that these were not the only cases with such an unfavorable outlook which he had been able to cure in this manner, but they had been selected from among a number of others because they had consulted other gynæcologists before they came under his observation.

A PLEA FOR EFFICIENT LEGISLATION REGULATING MEDICAL PRACTICE.*

By PERRY H. MILLARD, M.D., OF ST. PAUL.

During the last decade no question in medical sociology has attracted greater attention than medical education. The requirements of our colleges not being upon a par with those of other countries, nor with other departments of education in this country, it was but natural that the profession as a whole, the medical press and organized bodies of medical men, should join in a demand for needed reforms. During the formative period of our history it is but natural that abuses should have arisen in methods of education and obtain a firm rooting. A spirit of criticism exists that will not subside pending the definite determination of a question of such vital interest to the profession of the country.

As a nation during the first century of our history, we have established a system of common school education that challenges the admiration of the civilized world. It is a subject of regret, however, that in certain advanced lines of education our methods have proven most defective. This is true of medical education; a system having secured foothold with us, that is indeed anomalous.

Having no support other than the fees of students; without university or college connection; without support from the State, generally accorded other systems of education; without restraining legislative enactments; without laws regulating the granting of charters for purposes of medical instruction; it is indeed little wonder that at the end of the first century of our history as a nation, chaos should reign supreme.

The agitation of the question of medical education is bearing fruit, however, in that a majority of the schools situated in the northern States demand at the present time evidence of preliminary fitness before matriculation, and that in a period of five years all colleges known to the writer have extended the period of time of study, with a change of the minimum length of term from five to six months. After the present year every medical school of recognized standing will require attendance upon four courses of lectures in different years, of six months' duration each course, before conferring the degree of M.D. The reforms thus far accomplished have only been secured in the face of determined opposition at the hands of the representatives of the low grade institutions. Future opposition will result in disaster to the participants. Professional sentiment is decidedly with those schools now operating under the advanced curricula. This is particularly manifested by the increased number of matri-

* Read Before the American Academy of Medicine at Baltimore, May 6, 1895.

culates in the last three years at schools operating under the four years' course. The fiscal matriculation at the University of Pennsylvania and Columbia is, approximately, eight hundred, Harvard five hundred, and others in proportion; while that of the recognized low-grade institutions have sensibly fallen off.

Notwithstanding the trend of public opinion, we are firmly of the conviction that our only safety consists in the establishment of efficient legislative acts in substantially every State. The high grade schools are undergoing a period of evolution, and are determined to inaugurate greater system in methods of work; with low-grade schools little evidence is at our command pointing to improvement.

The elevation of the standard of requirements in the latter class of schools have seemingly been entirely in response to the requirements of the respective State boards of medical examiners.

The indifference of the profession to methods of medical education has been far-reaching in its pernicious influences. Blinded by our own shortcomings, we did not awaken to a realization of our environment until our interests were greatly jeopardized. We found ourselves drifting, in the estimation of both the public and profession, towards a condition of professional inefficiency, not unlike that of French medicine in the seventeenth century, so graphically described by Molière. One of the greatest evils of our system was the flooding of our ranks with a horde of poorly educated practitioners far in excess of our legitimate demands. The latter assertion is convincingly illustrated by the statistics gleaned from the recent excellent paper of Professor Pepper on Medical Education, affording comparative statistics relating to the proportion of practitioners to the population in different countries of the globe.

TABLE INDICATING PROPORTION OF PHYSICIANS TO THE POPULATION.

Austro-Hungarian Empire.....	1 to 3,857.
Belgium.....	1 to 2,841.
France.....	1 to 2,666.
German Empire.....	1 to 3,038.
Italy.....	1 to 3,536.
Netherlands.....	1 to 2,484.
Norway.....	1 to 3,961.
Russia.....	1 to 8,551.
Spain.....	1 to 3,375.
United States.....	1 to 500.

The number of medical colleges indicates a similar disproportion.

NUMBER OF MEDICAL COLLEGES TO THE POPULATION.

Austro-Hungarian Empire....	1 to 5,153,917.
Belgium.....	1 to 1,534,111.
Brazil.....	1 to 7,001,167.
Canada.....	1 to 3,336,877.

Chili.....	1 to 2,887,552.
France.....	1 to 5,477,591.
German Empire.....	1 to 2,471,923.
Great Britain.....	1 to 2,358,767.
Italy.....	1 to 1,445,109.
Netherlands.....	1 to 660,249.
Norway.....	1 to 1,988,771.
Sweden.....	1 to 1,600,917.
Russia	1 to 14,403,317.
Spain.....	1 to 1,950,027.
United States.....	1 to 440,151.

It will be observed from the above that the proportion of practitioners and the number of schools are greatly in excess of other countries. Medical colleges in foreign countries are likewise independent financially, being, as a rule, directly supported by the State, or possessing a direct university connection.

An investigation of this subject reveals beyond the possibility of successful controversy that the most efficient profession is found in those countries protected by efficient legislation; while a correspondingly low standard of professional fitness exists in countries not similarly protected.

At one time considerable opposition existed to the regulation of medical practice by legislative enactments. With the defeat of attempts to destroy the effects of this form of legislation by litigation and the moral support afforded by the recent decision of the Supreme Court of the United States and Supreme Courts of the several States, as well as the apparent benefits from the successful operations of the law in a large number of States, it is pleasing to note a decided change of sentiment in favor of this form of legislation.

The existing opposition to this form of legislation is greatly disappearing, being greatly confined at present to the charlatan, the faculties of a few of our low grade schools and the public press. We can trace the existence of statutes regulating medical practice from the thirteenth century; in the year 1237, licenses were only obtainable in Italy upon attendance at medical lectures for a period of five years, with preliminary entrance requirements demanding three years' work in philosophy.

The first degrees in medicine were evidently conferred in Italy in 1384. Laws regulating medical practice have existed in all civilized countries for many centuries. It is unfortunate that in this country the diploma has been given a legal interpretation; in foreign countries it is simply an evidence of scientific value. With the advent of statutes regulating medical practice this custom upon the part of the courts is becoming abrogated. We cannot but conclude that in the older countries we have a superior profession in point of intelligence, with a more desirable environment; while with us we have, as a whole, men somewhat inferior in their preliminary training,

a number triple that of any other country and a professional environment most undesirable.

The essentials of efficient medical legislation will incorporate the following features:

(1) The adoption of more rigid rules governing the admission of students to medical schools.

(2) The determination of the applicant's fitness to practice by an examination upon all the branches of medicine.

(3) The right to refuse or revoke licenses for unprofessional or dishonorable conduct.

(4) An adequate penalty for violation of the provisions of this variety of legislation.

(5) The boards of examiners to be appointed by the Governor, with proportionate representation by different schools of practice. In support of demands for an adequate entrance requirement, it is conceded that medicine is now more nearly practised from a scientific basis than at any time in its history. Without adequate preliminary fitness, the broad field cannot be grasped nor its practice entrusted to persons without well trained minds.

Persons contemplating medicine as an avocation should give the scientific branches particular attention in preparation. A thorough course in the scientific department of our better equipped colleges or universities will permit of the successful accomplishment of the course now provided in the four years' curricula in a period of three years. I fully concur in the position taken by Professor Vaughan, however, in that the classical course does not prepare the student in a manner that he can safely abridge the work now required in the four years' curricula. The necessity of a thorough college training is more apparent now than at any previous time. While an immediate attempt, looking to the demand as above suggested, would probably meet with defeat, I am of the opinion, however, that by concert of action we can secure the adoption at this time of an elevation of the standard of fitness, requiring a college or university matriculation, or its equivalent, of all students wishing to commence the study of medicine. If the student cannot furnish a matriculation ticket from a recognized college or university, he or she should be required to undergo an examination that would admit to such course.

Under existing relations we cannot safely entrust this examination to the representatives of the teaching body. Except in a few of our high grade schools the entrance examination has been a farce as at present conducted. The factors leading to this condition are the same as outlined earlier in this paper. It is the result of college competition with an unnecessary multiplication, in recent years, of the number of teaching bodies. It is my judgment, based upon a somewhat varied and extended experience, that the majority of the schools in

this country exists to serve the personal interests of the respective faculties rather than to serve the legitimate demands of the people. About twenty-five per cent. of our schools have a matriculation of less than sixty pupils.

The determination of the fitness of the students to commence the study of medicine should be placed in the hands of a body of men entirely disinterested. I know of no body better qualified to superintend the execution of this important trust than a State board of medical examiners. If not such a body, then a committee composed of members of a faculty of a college or university.

The minimum of entrance requirements should be uniform between the different States. Under the operations of the New York law regulating the examination of students commencing the study of medicine, much good is being accomplished. I desire to urge upon the profession the necessity of provisions in future acts looking to a rigid protection of the gateway to the study of medicine.

(To be Continued.)

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting Dec. 28, 1894.

G. P. GIRDWOOD, M. D., PRESIDENT, IN THE CHAIR.

Dr. J. C. CAMERON, speaking in regard to the treatment, said the proper course to pursue, in these cases depends (1) upon where the arrest has taken place—whether it is at the brim, or whether it is low down; (2) whether the liquor amnii is present; whether it has only a short time escaped, or whether it has been long drained away. When the arrest is high up (at or above, the brim) which is a common occurrence, and the hand can be introduced, the manual breaking up of the wedge is indicated. He did not, however, think it necessary to pass the hand up as far as the fundus for this purpose; by passing the fingers along the posterior surface of the thighs, the flexure of the knees could be reached, then abduct the limb, pressing at the same time on the thigh, and the leg will generally fall into the operator's hand. This treatment, known as Pinard's manœuvre, is also indicated when sufficient liquor amnii is present to permit the introduction of the hand. When, however, the breech has descended, or when the liquor amnii has all drained away, leaving the uterus contracted round the fetus, it may be impossible to introduce the hand

sufficiently to make such manipulations; the forceps are then indicated. The fillet and hook are apt to do too much injury to warrant their use. Tarnier's Axis Traction Forceps are the best for such cases, the blades being introduced so as to grasp exactly the lateral diameter of the breech. If care is taken as to the direction in which traction is made, Dr. Cameron thought slipping not so likely to occur. It is the position of the arms after all that constitute the real difficulty in such cases. If they happen to be flexed outside the legs, or if the elbows project, delivery is almost impossible.

Dr. GEO. BROWN, in reply to Dr. Cameron, thought it made very little difference once one succeeded in getting the hand inside the uterus, which method was adopted, provided the operator delivered a leg, the difficulty being in getting the hand in. He had very little faith in the use of forceps in such cases; he found that no matter how accurately applied, or how well fitted, slipping occurred on the least force being used. It was only to be expected, as the blades could not, from the nature of the case, get a secure hold of the breech. Moreover, if Tarnier's forceps were used, and a lot of traction exercised, fracture of the child's ilia would almost certainly result.

Stated Meeting, 11th January, 1895.

J. B. McCONNELL, M.D., FIRST VICE-PRESIDENT, IN THE CHAIR.

Dr. R. A. Bowie, of Brockville, was elected an ordinary member.

Death from Chloroform.—Dr. JAMES BELL reported this case as follows:—

Mrs. T., æt. 30, suffering from cerebral tumor involving the lower portion of the left motor area, was prepared for operation December 6th, 1894. The administration of chloroform was begun at 2 p.m. by Dr. Davidson, with Dr. Fry watching the radial pulse. Chloroform was given on an Esmarch's wire mask, covered with thin stockinette. From first to last the amount of chloroform which escaped from the bottle was seven drams, but on two occasions the bottle was upset and some of its contents spilled. The seven drams, therefore, represent not only the chloroform which was poured upon the mask, but the quantity which was spilled on the two occasions above referred to. The whole period during which chloroform was administered was thirty-three minutes. The patient passed quietly into the anæsthetic state without any unusual or untoward symptoms. At 2.30 the pulse was 100, respiration 28, pupils contracted. At 2.35 lines were drawn on the shaven scalp with the scalpel to indicate the position of the

Rolandic and Sylvian fissures. These incisions were very superficial, but the patient struggled a little, showing that she was not then fully anæsthetized. It was also remarked that there was very little bleeding from these slight incisions. (I am now inclined to attach some importance to this fact.) From this time 30 drops of chloroform were dropped upon the mask, 10 drops at a time. At 2.39 the pulse stopped suddenly and without warning. Six respiratory movements occurred after the pulse ceased to be felt,—at first full and strong—and gradually diminishing until they ceased altogether. There was then full dilatation of the pupils, and general lividity developed rapidly. The patient was inverted, hot applications were applied to the precordium, the tongue was drawn forward and artificial respiration carried on for fifteen minutes, when respiration was restored. Six natural respirations occurred in a minute, during which the lividity was decreased considerably. The pulse could not be felt, but some cardiac movement could be recognized by Dr. Stewart with the stethoscope. With the return of respiration I began to feel that the danger had passed, but at the expiration of one minute respiration became slow and shallow. Artificial respiration was resumed, 1.50 gr. of strychnia was given hypodermically and three capsules of amyl nitrate (5 minims each) were applied to the nostrils. At this time, however, respiration had practically ceased, so that the amyl nitrate had probably no effect whatever. Respiration ceased entirely and deep lividity supervened. Restorative measures were abandoned at 2.58.

At the autopsy, seven hours after death, all the chambers of the heart were found moderately full of blood, the brain tumor was found to be an infiltrating sarcoma, diffused over a wide area of the left hemisphere with secondary nodules in the peritoneum,—an inoperable growth.

The coroner was notified and an inquest held, the result being a verdict fully exonerating the hospital and all concerned.

In this case, which was carefully observed throughout, death very clearly began at the heart, and also very clearly was not due to over-dosage, which, I believe, is a much more frequent cause of death in chloroform administration than is generally recognized. In cases of death from over-dosage, moreover, the respiratory function is the first to fail, and the widespread belief that chloroform frequently, if not generally, kills through arrest of the respiratory function is, in my opinion, largely based upon the observation of such cases. This was a conspicuous fallacy in the experiments of the Hyderabad Commission. They chloroformed several dogs to death (over-dosage). These dogs all died through arrest of respiratory function, and upon those experiments the

Commission laid down the rule that deaths from chloroform *always* occurred in this way, entirely ignoring such cases as the one here reported. Throughout the whole history of chloroform as an anæsthetic, cases of sudden death have occurred from time to time in patients with sound organs, often during slight operations or before operation was begun, and at an early period of anæsthesia, in which arrest of heart's action and cessation of respiration were noted at the same moment, or in which the arrest of heart's action was first noticed. Now, it must be borne in mind that in strangulation, asphyxia or paralysis of the respiratory centre, causing complete cessation of respiration, the heart's action continues and the radial pulse can be felt for an appreciable space of time—often for some minutes. On the contrary, sudden and complete arrest of the heart's action is *immediately* followed by cessation of respiration. It is, therefore, highly probable that when pulse and respiration appear to fail at the same moment, the primary failure is in the heart. The fact already noted, that the slight incisions in the scalp bled only slightly, has led me to think that perhaps there was, even then, some inhibitory process at work affecting the capillary circulation, and apparently beginning at the periphery, as the pulse was still full, strong and regular. Besides, the heart failure was not complete, when the radial pulse first became so weak as to be inappreciable, as cardiac movements were recognized later, and there was a return of respiration for a little more than a minute.

Dr. JAMES STEWART remarked the cause of death was heart failure. This, he believed, was the usual cause, according to the investigations made in this country and in Great Britain. Surgeon Laurie had made various attempts to prove that death was due to respiratory paralysis; but since his paper on this subject in connection with the Hyderabad Commission appeared, many others have closely investigated the subject, and almost all agree that death takes place, not through the respiratory, but through the cardiac centre. The matter is of special importance, as Laurie's teaching is now so widespread that the administrator is led to pay greater attention to the respirations, to the neglect of the pulse; whereas in reality it is the latter which should be the more closely watched as the source of danger.

Dr. GORDON CAMPBELL thought that in the case under discussion there must have been some recovery of the heart, temporarily at all events. Dr. Bell said that after the stoppage of the heart the lungs continued acting for six or eight respirations, then they also ceased and the patient became very livid. However, after artificial respiration and other

restorative measures had been adopted, the patient again began breathing naturally, and after a certain number of full respirations the lividity became diminished and the appearance of the patient so far improved as to lead Dr. Bell to believe all was well. This improvement could not occur from the mere aeration of the blood in the lungs. To relieve the congestion of the peripheral circulation the heart must have acted also, and on this account Dr. Campbell believed that here at least the initial paralysis of the heart was not final or permanent.

Dr. MCCONNELL remarked, that according to a report of some investigations recently undertaken in the United States by Hare and Thornton, the Hyderabad theory was confirmed, and death did seem to occur through respiratory failure.

Dr. BLACKADER said that the present opinion of investigators with regard to the action of chloroform in animals, especially dogs, was that its first toxic effect was not upon the heart, but upon the respiratory and vasomotor systems. He thought this view must be now generally adopted. Its action upon man, however, seemed occasionally to differ from this. From the clinical reports of several fatal cases it seemed to have been shown that chloroform clearly in certain cases had a primary toxic action upon the heart in man. He thought these contradictory results might be reconciled by the fact that the former dealt with lower animals in a healthy condition, whereas the latter had to do with the human species, and often where pathological conditions existed.

Dr. JAMES BELL said that in accepting the results of these experimenters we must not lose sight of the fact that although the usual mode of death from a narcotic drug, such as chloroform, ether or opium, may be, and very likely is, through the respiratory centres in cases such as he had now reported, the death is not the result of the narcotic qualities of the drug, but is something which occurs once in about three thousand times, or perhaps only once in fifty thousand times. The experiments alluded to have never gone beyond a couple of hundred cases, and therefore were not likely to meet with this special result of chloroform. He believed it very likely that where death was produced by narcotic action of the drug, it occurred through the respiratory centres, and he had no doubt at all that accidents often arose from an overdose of chloroform given by a careless administrator. He had seen instances of such accidents himself where, though they did not end fatally, they might have done so. The point is, however, that once in a certain number of cases where you least expect it, in minor operations, or even before the operation has begun, where only a little of the drug

has been given and where every possible precaution has been taken, cardiac failure supervenes and is not recovered from, whereas in other cases it is recovered from. He reported a case last summer of a boy whose pulse stopped and gave him a great scare, but who fully recovered. In the present case Dr. Bell thought the fact that so little bleeding followed his preliminary scratching of the scalp, a region where bleeding should be profuse, was of considerable significance. This took place four minutes before the heart stopped, and might go to show that even then there was some inhibitory process at work in the circulation at its distal extremity which travelled towards the centre. This was to him a new thought, as he had not been accustomed to think of the arrest of the heart's action being brought about in that way, from the periphery towards the centre; still, he was confident the scratches he made in the scalp did not bleed as they should have done, and their not doing so he believed of some significance.

Dr. ELDER recalled the objection made by Dr. Campbell. He could not believe that the mere æration of the blood in the lungs could so affect the lividity of the general surface as to lead Dr. Bell to think everything was coming right.

Dr. LAFLEUR asked if rhythmic traction on the tongue, after the method used by Laborde and in great favor with the Parisians, had been tried.

Dr. JAS. BELL, in answer to Dr. Elder, re-read the portion of his written report bearing on this point. He further said, the apparent recovery was never so complete as to give them any hope of resuming the operation; the cardiac impulse never returned. Dr. Lafleur he answered in the negative.

Dr. MILLS believed that though Dr. Campbell's point had been well taken, it might be pressed too far. Very few people properly estimated the importance of the respirations on the venous circulation; thus, to dilate the lungs was to enlarge the arterioles, and to allow blood to get out of the right heart, and some to take its place, so that it is not impossible to understand how a certain amount of lividity might disappear were the heart beating ever so faintly. He thought the investigations heretofore had been conducted on far too narrow a basis, and the conclusions drawn from altogether insufficient data. He thought the experiments of Gaskell and Shore proved that the heart may not only fail, but fail early. With reference to Dr. Bell's suggestion of some failure of the peripheral circulation first, it is possible to understand some derangement of the vaso-motor centres by which great dilatation of the vessels of one region may take place, while the heart still beats, causing a corresponding anæmia in other parts. The vessels

of the abdominal area, for instance, may be so dilated as to suck up all the blood of the body, and there would then be practically no circulation elsewhere. Other points which he thought Dr. Bell might have laid more emphasis upon were: (1) the fact that the surgeon is dealing with individuals diseased, or at least not perfectly normal as to health, whereas the experimenters dealt with animals generally in good health; (2) the influence of psychic impressions of dread, which, existing in the mind and kept under control during perfect consciousness, may be revived in their full force as the individual sinks under the influence of the drug. Something akin to this is seen in hypnotism, where impressions made in one state of consciousness were revived and acted upon in another; (3) there were the special peculiarities of the heart muscle itself to consider. This was seen in the fact that we may act with chloroform upon hearts completely severed from their nervous connections, and get results as diverse and inexplicable as when we act upon the heart *in situ*.

Dr. BLACKADER remarked so far as pharmacologists were concerned, he believed he was justified in stating their opinion to be that the experiments of Gaskell and Shore were altogether too complicated to be relied upon.

Dr. ADAMI agreed with Dr. Blackader that the work and experiments of Gaskell were very complicated. Nevertheless in some cases where the experiment came off successfully, the results were striking, as instanced in the case of the cross-ligatures and anastomosis performed between two dogs, so that the blood of one dog exclusively supplied the cerebral vessels of the other, while his own cerebral vessels received their supply from the other. They then chloroformed one of them, and as a result of the cross anastomosing, the dog who received the chloroform had his brain supplied with pure blood, while the dog who did not inhale it had his cerebral blood supply charged with the drug. In some of these experiments it was found that the animal inhaling the drug, although his nerve centres were supplied with pure blood, died of heart failure, that showing that chloroform had a direct action upon the heart itself. Some experiments of his own were in the same line. He found that when certain quantities of chloroform were given, sudden and great dilatation of the chambers of the heart followed; this occurred so rapidly as to seem as though we had here an action upon the muscle fibres themselves, or upon the fine nerve endings (which Berkley and others have now shown to be more common than supposed hitherto), rather than upon the nerve centres in the brain or cord. Dr. Adami thought the conclusion to be drawn from the observations of Gaskell and Shore was that chloroform could act directly upon the heart.

Dr. WILKINS believed the untoward action of chloroform in cases like that under discussion was in the heart muscle itself, and gave his reason as follows: some years ago, when performing experiments upon animals, he frequently had stoppage of the heart occur among dogs, which he was able to resuscitate afterwards by artificial respiration. This resuscitation proved the action to have been upon the heart itself, because the cardiac and respiratory centres being close to each other in the medulla, if the lesion was central, recovery could not take place in such a short space of time. Most of the members would remember those drowning experiments, where dogs were submerged, some with corks in their trachæ, some without; the former were capable of being resuscitated, as they could properly aerate their blood and the heart resumed its action, the latter were not. In collapse from chloroform, if artificial respiration were kept up for three or four minutes, the heart might resume its action, showing the collapse to have been the result of the action of the drug upon the heart muscle itself rather than upon the cardiac or respiratory centres.

Dislocation of the Ninth Dorsal Vertebra treated by Extension.—Dr. ARMSTRONG showed a man in whom he had successfully reduced a dislocation of the dorsal vertebra. The patient was brought into the hospital with what appeared to be a fracture and dislocation of the eighth or ninth dorsal vertebra. The accident occurred in the following way: The man driving under a gateway on top of a load got himself jammed between the latter and the arch. There was no evidence of destruction of the cord at that time, he could move his legs, etc., and sensation seemed normal; but his body was doubled up, bent much forward and he was unable to straighten himself. A depression was observed at the point of injury and the supra-spinous ligament seemed broken. He put the patient under an anæsthetic, had a large pillow placed under his abdomen, and with the assistance of two men attempted extension and reduction. To his great surprise the dislocation was reduced almost at once, slipping right in, the two vertebrae came together, and the depression and deformity disappeared. The man felt quite relieved upon coming out of the chloroform, and although seven weeks had passed he had had no bad symptoms since. From this experience he would therefore advise surgeons always to try extension of the spine with manipulation of the vertebrae before proceeding to operate, no matter what their previous experience of such cases may have been.

Arthrectomy.—Dr. ARMSTRONG showed a man upon whom he had performed arthrectomy about a year before. The patient had been exhibited shortly after the operation,

when only slight motion in the joint was present; now, however, it was capable of a great deal more. The operation consisted of opening the knee-joint and removing the articular surfaces of both condyles and a portion of the tibia. He had cut across the patella, which was united by ligamentous union. The case was one of caries sicca, with marked atrophy of the muscles. The object in bringing him again was to show how much improvement had taken place since the operation. The man had been working on a cattle ship all summer, and enjoyed apparently a very useful limb.

Dr. MILLS mentioned a case which he had seen in Baltimore a short time ago, under the care of Dr. A. W. Clement. It was dislocation in the horse of the middle cervical vertebrae, the deviation from a straight line being so great that the neck had the shape of a bent arm, and yet there never had been a symptom referable to the nervous system.

Dr. ADAMI reminded the Society that to a Montreal physician, the late Dr. Campbell, belongs the honor of what was believed to be the first case of successful reduction of dislocation of the cervical vertebrae. Dr. Campbell, while making his rounds, observed a child to fall from a tree, noticed the characteristic attitude of the body on the ground, pulled upon the head and brought the parts back into original position immediately.

Dr. JAS. BELL said he believed Dr. Campbell's case to be true. He himself saw a case of undoubted dislocation of the cervical vertebrae, without any symptoms of pressure on the cord. On first seeing him the patient refused to take an anæsthetic. On the following day, while undergoing an examination, in turning his head from side to side, suddenly his neck shot back, and he was as well as ever. It apparently reduced itself during the slight manipulation. Dr. Bell always felt there was danger of doing serious injury to the cord in attempting to reduce a dislocation; it was hard to imagine how one in the dorsal region could be reduced without injuring the cord.

Scurvy in Children with notes on two Cases.—Dr. A. D. BLACKADER read a paper on this subject as follows:—

It is only recently that the symptoms of scurvy in children have received recognition by the profession in America. Scarcely a twelve-month ago, Dr. Northrup of New York, previous to the presentation of a paper on this subject before the New York Academy of Medicine, wrote letters to physicians in various parts of the States and elsewhere, asking their experience with infantile scurvy. Along with others I was asked to communicate what I could, either from my own personal experience, or from that of my *confrères*, in reference to the prevalence of this disease in Montreal. I had

to reply that personally I had not up to that date recognized a case, and careful enquiries made from many connected with the larger of our English and French hospitals and children's institutions received everywhere the same answer, that no cases had so far been recognized in Montreal.

This autumn, however, I had the satisfaction of seeing two fairly distinctive cases, and as the symptoms of scorbutus, unless looked for, are liable to be either unnoticed or mistaken and attributed to other causes, it seemed to me that a report of the cases, with a short review of the literature, might prove of some interest to this Society.

My first case was seen by me about the middle of last November. The infant, 12 months old, had at birth been a small but well-nourished infant, and for the first six weeks was nursed almost entirely at the breast. Then the supply failed, and the infant, under the supervision of the attending physician, was fed with a mixture of milk, barley water and lime water. Under this artificial feeding it failed to thrive; vomiting, curdy motions, and almost continuous colicky pain, attested the failure of digestion. One by one the more popular infant foods received a trial: Cardinal Food, Lactated Food, Neave's Food, Nestlé's Food, Horlich's Malted Milk, Peptogenic Milk Powder. Then the infant was taken to the country. Milk was again tried, but failing to agree, recourse was had to Carnick's Soluble Food, which appeared for the time to be digested and assimilated. The child under this commenced to gain weight, the motions improved, sleep was more restful, while during the day the infant appeared bright and contented. About the first week in October, the mother noticed that the child cried on any attempt to move the lower limbs. Shortly afterwards, a swelling was observed about the right knee, and later a bluish-colored spot appeared an inch below the head of the tibia. This was shown to the attending physician, who told the mother the child must have had a fall, and prescribed a liniment to be rubbed over the swelling. Five or six days afterwards a similar bluish spot appeared on the other knee, and the mother, on again consulting the physician, was told that probably both knees had been injured by the fall, that accidents like this required time, and quietness was enjoined for the baby.

Two weeks afterwards the child was brought to my office. The notes taken at the time are as follows: Infant, twelve months old, rather small for its age, pale, but with a fair amount of subcutaneous fat. Head well shaped, anterior fontanelle not abnormally large; slight beading of the ribs; chest well shaped; abdomen slightly prominent; infant cries at once on movement of the lower limbs. On the right knee, one inch below the head of the tibia,

there is a bluish-green spot of ecchymosis about the size of a half-dollar piece; just above the joint the limb appears slightly swollen, and firm and resisting to the touch. The skin is pale and cool, but the surface is apparently tender. The circumference of the limb here is $\frac{3}{8}$ inch larger than that of the corresponding limb. Below the left knee there is another spot of ecchymosis considerably larger than on the right knee; here the limb is tender and slightly swollen. No attempt is made by the child to move the limbs, and since the onset of the trouble, four weeks ago, the infant has refused to make any attempt to stand, although previously it was eager to do so. The patellar reflexes are active. Another spot of ecchymosis, about the size of a ten-cent piece, is present on the left ear. An inspection of the mouth shows the two lower incisors cut, but the gum surrounding them is of a deep bluish-red color, bleeding easily when touched. The upper incisors are not yet through, but the mucous membrane over them is reddened, and over the edge of the two teeth almost through, it is of a deep bluish tinge. Otherwise the child appears well. The tongue is slightly furred, the motions are somewhat pale in color, the urine is said to be scanty, and the thermometer taken in the rectum records 99° F.

The infant was ordered to be given about a tablespoonful of fresh orange juice, slightly sweetened, and diluted with water. Artificial foods were stopped, and a mixture of creamy fresh milk with thin barley water was directed to be given. Once a day the child was to have a dessertspoonful of the red juice of a lightly broiled steak. The knees were to be kept covered with cotton wool and a light bandage.

Three days later, the mother reported that the infant appeared to be almost well. Tenderness on movement had passed away, the ecchymosis had almost disappeared, and on the second night after the change in his food, the child passed the quietest night of its life. Eight days after the first visit the child was brought again to my office. The gums were perfectly healthy; there was almost no difference to be made out in the girth of the two lower limbs, both of which it moved of its own accord. The infant was now given a mixture of cod liver oil and iron, and a little carefully mashed potato was added to its diet. I have not seen it since, but on telephoning to the mother a few days ago, the child was reported to be the picture of health.

The second case was an infant aged 11 months, the last of a family of six children, all strong and healthy, and all of whom had, as the mother told me at the time, been brought up on the bottle and thriven on it, giving little or no trouble. This one had been perfectly well up to five weeks previous to my visit, when it was noticed to show signs of pain on move-

ment of the legs. This, it was thought by the mother, would pass away, but on its continuance, the family physician was called in, who examined the limb carefully and found no sign of any injury. Two weeks afterwards the child was again seen, the diagnosis of rheumatism made, and a salicylate mixture prescribed. No improvement followed, the child became very restless at night, and I was asked by the attending physician to see the infant. I found the child very pale, almost earthy in color, but with a fair amount of subcutaneous fat. On examination, there was evidence of slight rachitis. The chest was well shaped, there was no ecchymoses anywhere to be seen, and there was no distinct enlargement in any place of either of the lower limbs. The child made no effort to move its limbs, and cried bitterly when any forcible attempt was made to disturb them. The reflexes were normal. On examination of the mouth, the gums were found in a very similar condition to that described as met with in the previous case. Around the two lower incisors there was a broad line of inflammation of deep bluish hue, bleeding easily when touched. The lungs, heart and abdominal organs all appeared healthy. On enquiry, I found that while the other children had been fed on various mixtures of milk and flour, for this child the mother had been instructed to boil all the milk given. This she had endeavored to do thoroughly, the better to kill the germs. So the boiling continued over several minutes.

In the way of treatment I prescribed as before, a little orange juice, and the red juice of underdone steak. I also stopped the boiling of the milk. On the following afternoon I received word from the mother that there was already a marked improvement; and when I called after a few days I would hardly have recognized it for the same infant.

Only a few weeks ago, Dr. Barlow, in the Bradshawe Lecture before the Royal College of Physicians, has very exhaustively treated the whole subject of scorbutus in infancy. Dr. Gee, in 1871, first drew attention to this disease, and described five cases under the title of osteal or periosteal cachexia. Not, however, until 1878 were the symptoms of this disorder asserted to be scorbutic in character by Dr. Cheadle, and in 1883 Dr. Barlow, in a lecture before the Medico-Chirurgical Society of London, gave the first complete account of its clinical history, etiology, and the morbid conditions present in the bone lesions, and demonstrated its resemblance to scurvy in the adult. Since then numerous cases have been reported in England. In America, Dr. Northrup, at the meeting of the American Pediatric Society in 1889, was the first to report cases of infantile scorbutus, and in his paper last year before the New York Academy of Medicine, a total of 106

reported cases were recorded as having been observed in America.

The disorder generally makes its appearance in infants between the ages of nine and eighteen months. It is said to occasionally occur as early as the fourth month. The onset is usually sudden. The infant becomes fretful; disinclined to move; its lower limbs are kept drawn up and still, and any forcible movement of them gives rise to continuous crying. Later on, should the conditions giving rise to the disorder continue, an obscure swelling may perhaps be noticed on one of the lower limbs, usually on the femur towards its lower end, or on the upper end of the tibia, and a few days later, a similar swelling may appear on the corresponding limb of the opposite side. Generally the swellings are not symmetrical. The skin over them is pale, and there is no local heat or pitting. The bulk of the limb is increased, but there is no fluctuation; on the contrary, the swelling is ill-defined, and is suggestive of thickening round the shafts of the bones. The limbs are now more or less paralysed, everted and immobile, but the patellar and plantar reflexes are active.

If the disease progress, swellings of the same character may appear on other bones; on the scapulæ, bones of the arm, vertebræ, etc., and occasionally, in some cases, fractures on slight occasion may occur.

One of the more frequent, and sometimes the only swelling of the kind, as Dr. Barlow points out, occurs on the upper orbit, giving rise to sudden proptosis of the eye-ball, with puffiness, and in a few days, slight ecchymosis of the upper lid. These swellings are due to extravasation of blood under the periosteum. In severe cases, hæmorrhage may occur into the centre of the shaft, leading to extensive absorption of trabecular tissue, and predisposing to fracture. Extravasations are also met with in the superficial and deep set of muscles, but one never meets clinically with the small subcutaneous hæmorrhages of purpura. The condition of the gum is modified, as in the adult, by the presence or absence of teeth. If the teeth be present we have distinct sponginess of the gums, which in some cases may go on to fleshy swellings, even projecting from the mouth and giving rise to fetor. When only a few teeth are present the sponginess is less marked; and if there be no teeth, the gums may appear normal, or may present small bluish extravasations over the sites of the advancing teeth.

The chief constitutional symptom is the anæmia, due partly to direct cachexia, and partly to loss of blood from the extravasations. Although emaciation may not be marked, asthenia appears to be extreme. Pyrexia is only slight and often altogether absent, but occasionally an elevation of 102° F. is recorded,

apparently due to the pain and tension produced by the extravasation. The appetite is generally fair; the urine is scanty. In severe cases, hæmaturia may sometimes be observed.

The presence of some degree of rachitis was noted by all the earlier writers on this disease, and some of them, especially in Germany, attributed the morbid conditions noticed to an acute form of rickets. More careful observation, however, showed that, while the symptoms of both disorders might be present in an infant, they were distinct and not dependent upon one another. The all-important factor in the development of scorbutus in the infant, as in the adult, is a faulty dietary. We shall always find in scorbutic infants a history of the child having been fed for several months on food of which the vitality has been more or less killed by cooking. Infants fed on the so-called patent foods for any length of time appear especially liable to this disorder. To such foods we must also add condensed milk, milk too long sterilized, and boiled milk. As Dr. Barlow says, "The further we get from living food the more is the likelihood of scurvy being induced." Scorbutus does not appear to be a disease frequently met with among the poor, or in out-patient hospital practice, for the following reasons given by Dr. Barlow: (1) Such patients are generally too poor to afford the expense of feeding their infants altogether on patent foods; and (2) the children of the poor are usually brought to the table at an early age, and are given pieces from their parents' dishes, and thus obtain a variety, harmful in some respects, but beneficial in that it prevents the development of scorbutic symptoms.

It is to be noted that the symptoms of this disease vary much, and are sometimes very apt to mislead. In some cases irritability of the infant and apparent tenderness of the limb are out of all proportion to the signs found. In a few cases proptosis due to orbital hæmorrhage has been for some days the one prominent symptom, and if we are not on guard, may give rise to a diagnosis of more serious disease. In a recent lecture Mr. Howard Marsh calls attention to several cases where scorbutic extravasations had led to the diagnosis in one case of sarcoma, in another of fracture of the femur, and in a third of infantile paralysis, the alarming symptoms quickly subsiding on proper dietary and treatment.

There is another thought to bear in mind in reference to this disease, and it appears to me a most important one, and it is this: just as we may meet in some children with symptoms of rickets so slight that they might easily escape our notice, unless a careful consideration of the history and examination of the infant be made; and just as such a rachitic condition may underlie other disorders of the respiratory or alimentary tract, and require proper treatment

before these disorders can be permanently and satisfactorily cured; so may we not have a scorbutic condition with such slight symptoms as to scarcely permit an absolute diagnosis, yet may not such a disordering of nutrition underlie many troublesome and persistent clinical conditions, and require careful consideration and treatment before we can satisfactorily alleviate the associated ailments?

Dr. McCONNELL, after reading the articles referred to by Dr. Blackader, remembered about two years ago having had a case, which at the time he diagnosed as rheumatism, but which he now believes to have been scurvy.

Dr. KENNETH CAMERON thought he could add another case to Dr. Blackader's series. The one referred to, which occurred last summer, was a child six months old, fed entirely upon sterilized milk and Nestlé's food. It developed subcutaneous abscesses all over the body. No teeth were present; and the gums were not at all inflamed. Still, there was some stiffness and pain in the joints, causing flexure of the limbs, and this, together with the eruption of the skin, was all on which he had to form a diagnosis. As at that time he was making investigations in connection with the bacillus pyocyanus, he suspected the patient's condition to be of that nature. Bacteriological examination, however, proved negative. He decided to treat it as a scurvy, and prescribed orange juice and fresh milk. The result was marvellous. Inside of a week the abscesses had healed up and no others formed, the child gave evidence of returning health in every way, and is now perfectly well. The effect of treatment seemed to confirm the belief that the case was one of scurvy.

Dr. MORROW saw a case about six months ago, which he diagnosed and treated as scurvy. It suffered from sore mouth, plaintive cry, and the swollen gums protruded into the mouth; there were one or two reddish spots on the body, and restlessness was particularly marked. He prescribed orange juice and beef juice, and in a week the child was apparently well. The parents, it seemed, had been accustomed to dilute the milk very much. It had never had anything but milk and a little porridge, although nineteen months old.

Dr. ORR had seen a case that day which he suspected to be scurvy. The gums were much swollen and bled readily. He examined the child for ecchymoses, but without success, although it appeared very sore all over. He was using anti-scorbutic treatment, and would await the result with interest. These facts in connection with scurvy in children so lately brought to light added, in Dr. Orr's opinion, another to the already formidable difficulties of infant feeding. He would like to ask Dr. Blackader whether the use of sterilized milk was to be discouraged altogether, and whether

we ought to advise parents to add some vegetable substance and meat juice to the diet as a prophylactic.

Dr. BLACKADER said in reference to the use of patent infant foods, that one was obliged to confess that in some instances it seemed necessary to have recourse to them. They might be used as a bridge to carry us over a difficulty, but their prolonged use had always appeared to him objectionable. The one important advantage which they possessed is that their process of manufacture might be supposed to render them sterile, and during the summer months, and often during the winter months, it might be almost impossible in some families to command an absolutely sterile food in any other way. In the light shown by the occasional appearance of scurvy in infants fed entirely on them, he thought we must regard all foods which had been prepared at the temperature of about 212° F. as dead foods—foods which fail to afford a perfect nutrition to the infant.

Progress of Science.

APOCYNUM CANNABINUM AS A CARDIO-KINETIC AND DIURETIC.

The drug has been known for some years in America as an emetic and cathartic, and has also been employed to some extent as a remedy against dropsy. Examined by Schmiedeberg in 1883, it was found to contain an amorphous substance, apocynin, and a glucoside, apocyneine, the first soluble in alcohol, not in water, the second easily soluble in water. The physiological action of a ten-per-cent. Tincture has been investigated independently by Brandford and Murray, who considered its effects as somewhat similar to those of strophanthus. The latter found that it reduced the frequency of the rapid heart, strengthened its beats, relieved cyanosis, and acted as a good diuretic. PETERUTI and SOMMA (*Il Policlincico*, Nos. 10 to 14, May to July, 1894) have used the root in two forms,—an infusion with water and a tincture. The decoction had a strength of 1 to 3 in 150, that of the tincture being 1 in 10. The results obtained in the two cases were as follows: The action of the decoction is exercised chiefly on the stomach and intestines, promoting: first, catharsis; and, secondly, emesis. These effects followed, in the cases quoted, the administration of a decoction of from 1 to 2 grammes of the root in 150 grammes of water, divided into two or three doses in the day. This emeto-cathartic action is manifest either on the first, second, or third day. When it is delayed, there are also effects

on the urine and heart,—namely, increased diuresis, acceleration of the heart-beat, and arrhythmia, sometimes also a strengthening of the heart's action. Under these conditions the authors have observed diminution and final disappearance of œdema and relief of dyspnoea. This decoction is not, therefore, the best form to use in the case of uncompensated valvular lesions, on account of the emeto-cathartic action, which is only exceptionally absent. The tincture was free from gastro-intestinal irritant effects, even when large doses were employed. These effects, therefore, are probably due to some substance which is soluble in boiling water but insoluble in alcohol. On the other hand, marked cardio-kinetic effects were obtained from the tincture when employed in doses of 60 to 90 minims daily. It is probable, therefore, that the effects of the decoction are due to the presence of apocyneine, those of the tincture to that of apocynin (Schmiedeberg). A marked effect of the tincture is the production of diuresis, which is never accompanied with albuminuria; in fact, when albumin has been present, it has disappeared after a course of the tincture. Apocynum acts, therefore, as a diuretic without irritating the renal epithelium, by virtue of its action on the circulation. Sphygmographic tracings show also a considerable increase in the force of the pulse, the rapidity of which is sometimes markedly diminished. Change in rapidity is not, however, a constant effect, and sometimes the slowing is accompanied by irregularity in the rhythm, due, in all probability, to a stimulation of the cardiac branches of the vagus. Finally, apocynum appears to increase the arterial tension, but not constantly. On the whole, therefore, the tincture of apocynum is likely to prove useful in cases of imperfect compensation of valvular lesions, either reducing or even completely curing the œdema and dyspnoea which are the indications of such a condition. It has the advantage over the other cardiac drugs that it does not irritate the *præ viæ*, and that it may be used without danger for a long time.—*British Medical Journal*, September 22, 1894.

NEW METHOD OF STERILIZING LIGATURES.

M. Périer called attention to a new procedure for sterilizing and preserving ligatures and sutures, invented by M. Répin. This author, from numerous experiments, found that alcoholic vapor exercises a microbicide action sufficiently strong to remove any kind of micro-organism from ligatures. The most resistant spores such as the bacillus subtilis, anthrax, tetanus, and the septic vibron, were killed in from thirty-five to forty-five minutes

by anhydrous alcohol-vapor heated in 120° C. (248° F.). Catgut is thoroughly sterilized by this method without losing any of its properties. The author places the sterilized catgut in a culture bouillon and seals it in a glass tube, keeping it for several days in an oven. If sterilization has not been complete, microbes will have developed in the bouillon, and the culture will have become cloudy; if, on the other hand, the liquid remain clear, it is a material and certain proof that the contents of the tube are thoroughly aseptic.—*Semaine Médicale*, June 6, 1894.

OPERATIVE TREATMENT OF WRY NECK.

Mikulicz (*Centralbl. f. Chirur.*, No. 1, 1895), dissatisfied with the results both of subcutaneous and open division of the sterno mastoid in cases of caput obstipum, advocates almost total removal of the contracted muscle, the posterior part of its upper extremity, where it is traversed by the spinal accessory nerve, being left. He has practised this operation in 17 cases with success, the only bad result having been disfigurement of the neck caused by the absence of the muscle. Examination of the removed muscle in these cases has convinced him that wry neck is the result of a chronic inflammatory condition—myositis fibrosa—involving the whole of the sterno mastoid. This condition he attributes in congenital cases rather to compression of the muscle during a long and difficult labor than to laceration. The so-called hæmatoma of the sterno mastoid sometimes observed in infants is not due, he holds, to effusion of blood, but to thickening and induration of the inflamed muscle.—*British Medical Journal*.

IMPROVED METHOD OF RADICAL OPERATION FOR CANCER OF THE BREAST.

Dr. Willy Meyer (*Medical Record*) describes the following method of operation:

A skin incision embracing a liberal area around the nipple, and running across the axilla to the point of insertion of the tendon of the pectoralis major muscle, is made. A second incision is made at right angles to the one just described, running to the junction of the middle and outer thirds of the clavicle. After the skin-flaps are reflected the tendons of insertion of the pectoralis major and minor muscles are divided, and these muscles, the axillary, subclavicular, and infraclavicular fat and lymphatics, and the diseased breast are removed in one mass. The muscles are separated from their points of origin, and the new growth is not cut into during the operation. The vessels entering the pectoralis major muscles are clamped

before they are cut. The wound is sutured as far as possible and axillary drainage is used.—*International Medical Magazine*

DEFECTS IN SURGICAL PRACTICE.

In an exceedingly instructive article—from which want of space prevents us from quoting as liberally as we would like—Prof. Skene (*Brooklyn Med. Jour.*, Feb., 1895) points out the most prominent defects in surgery as taught and practised at the present time. He considers the lack of dexterity and accuracy, which leads to slow and consequently imperfect operating, as the most noticeable of these defects, and states that every moment wasted in an operation is a detriment to the patient as well as the surgeon. Rapidity of operating is especially necessary in order to avoid prolonged anæsthesia, which is injurious and tends to retard recovery by favoring non-union, suppuration and sepsis. Time is also precious, because the longer the tissues are exposed and the more they are handled, the more slowly and imperfectly they heal. Tissues exposed to the air for an hour or more begin preparation for healing by granulation, and are therefore less capable of uniting by immediate union. Since the introduction of antiseptic surgery, imperfections are apt to arise from the endless detail necessary, which in itself makes it difficult to attain perfection. Another source of defects is the disposition on the part of some surgeons to devise new operations and to modify, in the hope of improving old ones, while they are in black darkness regarding how to perform many of the operations that are known to be quite efficient and well established by the surgeons of the past and present. The endeavor to cover too much ground is also held responsible by the author as a cause of defects; for if one endeavors to wrestle with the whole field of operative surgery, he finds such a number and variety of operations to do, that one life is not enough for him to perfect himself in them all.—*The Intern. Jour. of Surgery*.

CLASS ROOM NOTES.

—The best drug for *Hiccough of Enteric Fever*, Prof. Hare says, is musk, ten grains, given by the rectum.

—Prof. Wilson says that an attack of *Influenza* is sometimes ushered in with an attack of nausea and vomiting.

—Prof. Longstreth says the best antidote for the depression caused by the *Salicyl Remedies* is brandy, but black coffee also acts well.

—Prof. Hare says in *Uterine Hemorrhage*, which is due to a congestion of the pelvic viscera, dry cups over the sacrum often give relief.

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EDITORS :

A. LAPHORN SMITH, B.A., M.D., M.E.C.S., Eng., F.O.S.
London.

F. WAYLAND CAMPBELL, M.A., M.D., L.R.C.P., London

ASSISTANT EDITOR

ROLLO CAMPBELL, C.M., M.D.

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MONTREAL, JUNE, 1895.

THE CANADIAN MEDICAL ASSOCIATION.

We trust that our readers are bearing in mind the annual meeting of our National Association, to be held at Kingston, Ontario, on the last Wednesday, Thursday and Friday of August. Those who have already attended these meetings, and especially those who attend them regularly, can testify to the benefit they derive from coming in personal contact with their brethren. The average medical practitioner's life is one of self denial, occasionally intermingled with actual hardship, so that he is fairly entitled to a few days' pleasure every year; and we can assure him that there are few ways of spending a holiday from which he can derive greater pleasure than by making acquaintances, often life-long friendships, at these annual meetings. But laying aside the question of pleasure, we maintain that it is a duty which he owes to himself as well as to his patients, to keep himself thoroughly in touch with the advances which are being made all along the line of medical and surgical practice, and it is the unanimous verdict of those who attend these meetings, that one learns more in three days in this way than he could possibly do in three months steady reading. We are aware that some will say that it does not pay, or that they cannot afford to leave their practice for these few days; but the sooner this illusion is dispelled the better. As a rule we are valued at our worth, and if the man who

loses no opportunity of adding to his stock of knowledge is worth more than the one who is content with what he already knows, the public who employ him will not be long in finding it out, and in rewarding him accordingly. The only other objection that can be raised is by those who reside a thousand miles away, and who think that such a distance is a reasonable excuse for not attending. But with our present facilities, even this distance is accomplished in a little more than a day each way; while, by taking a single ticket, and obtaining a certificate or receipt therefor, the return journey will be granted for one-third of a single fare. The President-elect, Dr. William Bayard, is eighty-one years of age, and yet we feel sure that the thousand miles he will have to travel will not deter him from being present. The President-elect of the American Medical Association, Dr. Beverly Cole, who is seventy-three years of age, travelled over six thousand miles to attend the annual meeting at Baltimore, and he informed us that he had attended many meetings before there was any trans-continental railway, travelling from San Francisco to Panama and from Panama to New York by steamer,—a distance of twelve thousand miles, and occupying three months of travel. After such an example, surely more than two hundred of our six thousand practitioners of Canada will manage to attend our meeting at Kingston.

WHAT DOCTORS DIE FROM.

From a recent article by Dr. Kortright, in the *Brooklyn Medical Journal*, based upon the mortality records of 450 physicians who died in New York and Brooklyn, the average age at death was 54 years and the rate per thousand was 25, a mortality which is only exceeded by saloon keepers, butchers, quarrymen and factory operators.

The mortality of clergymen is 16 and lawyers 20, so that instead of being the longest lived of any, owing to their superior knowledge of the laws of health, the profession of a doctor is almost the most hazardous. It also appears that suicide is four times greater than the general average for males.

From consumption, the death rate was only half the average, which shows that spending much of their time in the open air enables them

to defy the bacilli to which they are daily exposed. But their death rate from typhoid was three times the average. The mortality from diseases of the heart, arteries and kidneys grouped under the term of arterio-capillary fibrosis, was 35 per cent. of the whole, while the general average of males is only 25 per cent. This means that doctors eat too much and drink too much of alcoholic beverages and not enough pure plain water; and that they do not take enough exercise. The result is high-colored urine loaded with urates instead of urea. Uric acid irritates the lining membrane of the blood vessels as well as the tubules of the kidneys, while want of exercise and fresh air causes degeneration of all the muscular structures and the deposit of fat in and upon them. As our contemporary, the *Journal of the American Medical Association*, says: "It is the irregularities of living which make the physician neglect many hygienic rules that he forcibly impresses upon his patients. He is often eloquent in his arguments and reasons for rest and change and regular hours of sleep, to those who consult him. But alas! he does not put into practice in his own case what he so urgently impresses upon others."

We have been especially impressed with the truth of these words when we have been the guest at the homes of distinguished physicians. Not only are they irregular in taking their own meals, but very often we have known their wives and children waiting until three or four o'clock for their midday meal, while the doctor was seeing a waiting-room full of patients who could just as well have been seen a quarter of an hour or twenty minutes later. Every doctor owes it to himself and to his family to eat his three meals a day exactly at the same hour every day, and, with a little management, the thing can be done. On the rare occasions on which he cannot get home for his meal, let him eat a biscuit and drink a tumbler of water at the patient's house at the regular dinner hour, which will do him more good and less harm than the eating of a heavy dinner three hours after the regular hour, and only two hours before the next regular meal. We have tried both plans, and know whereof we speak. In the same way about sleep. Many of the night visits doctors make after 10 p. m. could have been made far better during the previous

day. Patients can be easily taught to call the doctor twelve hours sooner, and there is no better way of teaching them than by a rigorous exaction of a double fee for visits after 10 p. m. Let every doctor go to bed at 10 o'clock, and if he is called at 3 or 4 in the morning, he has already had a fair night's sleep, while if he is not called, he can get up at the regular hours of 6 in summer and 7 in winter. Dr. Skene wrote his great book on Gynæcology and Diseases of the Bladder, between 6 and 8 a. m. Working the heart and brain at full pressure until two in the morning and then having to take narcotics to obtain a few hours of exhausting sleep is the stupidest of stupid mistakes. We have known more than one young physician, with promise of a great future before him, fill an early grave from resorting to alcohol and coffee to stimulate him when he was exhausted, and then having to resort to narcotics when he faint would sleep. Noble and self-sacrificing as our profession is, it does not call upon us to make any such sacrifice as this. It is our first duty to take care of our own lives, in order to do the greatest amount of good to others. The want of exercise is not sufficiently recognized. A doctor may feel exhausted after a hard day's work sitting in his office chair, but he would feel refreshed in body and mind by a short walk or a ride on the bicycle. We shall, in a future issue, point out that fatigue is due to the accumulation of partly burned materials in the blood, and we will show how they can be completely burned and eliminated from the system. In the meantime we will content ourselves by saying that the doctor who never takes a holiday is surely pursuing a penny-wise-and-pound-foolish policy, as foolish as the peasant who killed her goose to get the golden eggs.

Let us use our best endeavors to prolong and render more useful the life-work of physicians.

CORRESPONDENCE.

LETTER FROM BALTIMORE.

(*By our own Correspondent.*)

Editor CANADA MEDICAL RECORD:—

DEAR SIR,

As there has been very little of gynæcology in your medical journal for some time past, perhaps a few notes of the impressions of a visit to some of the leading gynæcological centres of the Eastern States, as well as of the recent meeting of the

American Gynecological Society at Baltimore, might interest your readers. Among the most active of the younger men are Dr. Baldy and Dr. Noble of Philadelphia, of whom I had heard so much that I was anxious to see them operating. Dr. Baldy is the principal surgeon of the Gynecean Hospital situated on North 18th Street, a few doors north of Dr. Price's private hospital. We had the pleasure of seeing him remove an intra-uterine pregnancy, a fibroid uterus by the abdomen, and several lesser plastic operations. The first was a difficult one, large quantities of blood clots having to be scraped out of the abdomen and many intestinal adhesions requiring to be separated, care being taken to leave pieces of the sac rather than to tear the peritoneal covering of the intestine. The operation would have been an impossibility without the Trendelenberg posture, which is invariably employed by nearly every operator in the States. Dr. Baldy is a very painstaking operator, no particular effort being made to attain great speed. His operating room has walls of white tiles and a cement floor, and is furnished with every requisite for rendering everything aseptic. Dr. Noble is another young man of remarkable activity and great ability. He is the surgeon-in-chief of the Kensington Hospital for Women. He also has a fine operating room with tile walls and Mosaic floor, and we may add that he is a fine operator, as we had the pleasure of seeing him do several abdominal hysterectomies for small fibroids or for diseased appendages; for it is the rule now to remove the uterus in every case in which the appendages are taken out. This idea originated in France, and we must say we felt shocked at first at exposing women to the risks of a so much more serious operation than the removal of the appendages. But after hearing the arguments in its favor, namely, that the uterus is of no use to a woman who has no ovaries, and only causes her trouble in the form of purulent discharges, sometimes hæmorrhages, and occasionally retroversion and prolapse, while, on the other hand, it not only does not increase the danger of a cœliotomy to remove the uterus with the appendages, but even diminishes its danger, because no raw stumps are left to infect the peritoneum or to cause intestinal adhesions,—our opinion has been considerably modified in its favor. Dr. Montgomery, of Philadelphia, is one of the older and most celebrated gynecologists, being professor of that subject in the Jefferson College. We had the pleasure of seeing him doing some operations, abdominal and plastic, at St. Joseph's Hospital, a Catholic institution under the care of the nuns, but where they are wise enough to have a training school for secular or lay nurses, who are thoroughly up to date. These bright and intelligent young ladies were dressed in a costume of pure white, and looked

the picture of asepsis. The sisters were not seen at all. The operating-room and everything about it was thoroughly modern and up to date. Philadelphia seems to be the hot-bed of gynecology. Surely no other city can boast of so many first-class men. Not only did it produce the great and good Goodell, who will never be forgotten, but also Joseph Price, a remarkable man of his kind, with the largest experience of any American operator; and Baer, who invented the present method of performing hysterectomy, closing over the anterior and posterior flaps of peritoneum after tying the ovarian and uterine arteries, removing the uterus and dropping the stump. Then there are Montgomery, and Baldy, and Noble, and Asheby, and Penrose, who has succeeded Goodell as professor of gynecology in the University of Pennsylvania. We must not forget Philadelphia's medical gynecologists, who have done much good work, namely, Weir, Mitchell and Massey. Dr. Baer is a man so gentle and modest in spite of his great reputation that he is beloved by everyone. He is fond of Canadians, having a head nurse and several other nurses from Canada in his private hospital. His public service is performed at the Polyclinic hospital. Jacobs of Brussels was to have removed pus tubes and uterus by the vagina at Dr. Baer's clinic, but unfortunately the "Gascogne" steamer, in which he was to arrive, was delayed, and so we were denied the pleasure. But being anxious to see this operation well performed, in order to judge of its merits for ourselves, we went over to New York where Jacobs had been invited by Dr. Polk to demonstrate the method at his clinic at Bellevue. Again we were doomed to disappointment in seeing Jacobs operate, for the steamer was still overdue; but we were more than recompensed by seeing Dr. Polk himself perform three operations on the tubes and ovaries, or for removal of the uterus by the vaginal method, in the presence of a distinguished audience, including Gaillard Thomas, Wylie and Coe of New York, and Heurotin of Chicago. Personally Dr. Polk has the most charming and winning of manners; as a speaker, he has a beautiful, soft but clear and resonant voice, he makes use of the choicest of English language, and has a way of expressing himself so clearly that his opinion is almost irresistible. In a discussion he possesses wonderful tact, completely demolishing the argument of his opponent, yet doing it so considerably that it is impossible for the vanquished one to feel hurt. We were not surprised to be told that he comes of a fine old family, for he seems to have been born a gentleman. His recent election to the position of President of the American Gynecological Society shows how highly he is esteemed by the ninety-one gynecologists of America who

form that very select body. Although we could not fail to be very favorably impressed with Dr. Polk as an operator, we were disappointed with the vaginal method of removing appendages. We felt convinced that he could have done the same operation in less than half the time by the abdomen. Jacobs claims that the death rate is much less by the vaginal route, being less than 3 per cent. in more than 400 operations, including removal of fibroids and cancerous uteri. He also claims that there is less shock and a much shorter convalescence, and there is no risk of hernia. But, on the other hand, we think these advantages are outweighed by the great difficulty of performing the operation, especially when the appendages are adherent to the intestines and walls of the pelvis. Besides, when the appendages alone are removed, the uterus is left retroverted and prolapsed, while by the abdominal route it can be ventrofixed, while adhesions can be separated with much less danger. Dr. Polk himself admitted that the vaginal method was slower and more difficult, but that he felt that it was his duty to give it a thorough trial before finally adopting or condemning it. We attended an enjoyable evening at the gynecological section of the Academy of Medicine, where we met Addis Emmett, Cleveland, Wylie, Pryor, Goelet, Janvrin, Coe, Bache-Emmett, Riddle Goff, Boldt and Edebohs and many other celebrated gynecologists. The paper of the evening was by Dr. Goelet. After the scientific meeting, we assembled in the dining room, where a tasty little supper was awaiting us. We feel sure that this little supper, although not to be commended perhaps from an hygienic point of view, contributed considerably towards the best interests of the profession. We hope some day to see this feature introduced into the meetings of the Montreal societies, and in fact it might be the beginning of many a town and village medical society. After a few pleasant and instructive days spent among our New York brethren, especially Drs. Goelet and Emil Heuel, we hastened to Baltimore to attend the meeting of the American Gynecological Society. We had already spent a week there attending the American Medical Association, the Gynecological section of which under Dr. Franklin H. Martin of Chicago was far the best attended of any. Hysterectomy was the keynote of the meeting. Hysterectomy for fibroids; hysterectomy for pus tubes; hysterectomy for prolapsus; hysterectomy for puerperal septicæmia. There were a few odd papers on electricity for fibroids, electricity for intra-uterine foetation, curetting for puerperal fever, and ventrofixation for prolapsus. But the greatest treat of the meeting was witnessing the operations of Dr. Howard Kelly of the Johns Hopkins Hospital. Though not more than 36 or 38 years of age,

Dr. Kelly is one of the most distinguished surgeons of the world. Even Senn of Chicago, who is conceded to be the greatest living surgeon, said to the writer after witnessing his operations: "Kelly is a genius, and we can all learn from him." On asking Senn what he thought was the secret of Kelly's success, he replied: "The same that gave the world the one and only Michael Angelo. There has been only one Michael Angelo, and there has never been but one Kelly." This was a great deal, coming from so great a man as Senn. Nor did we ever admire the great Chicago surgeon so much as when we heard him thus so generously complimenting his young Eastern rival. The audience before which Kelly performed three or four major operations within one hour was no ordinary one. On one side of us sat Senn, Fenger, and Martin of Chicago, and Marcey of Boston; on the other, McLean of Detroit, Frederick of Buffalo, and Colley, Gibney, Wyeth, Gerster, Sayre, Otis, Goelet and Manly of New York. There were also Beverly Cole and McMonigal of San Francisco, Wills of Los Angeles, and Holmes of Portland; Woolsey of California; James B. Hamilton, Surgeon-General of the United States Army; Duff of Pittsburg; Deaver, Price and Alder of Philadelphia; and Rodman of St. Louis, besides more than a hundred other well known names. We were all astounded by Kelly's wonderful technical skill; in less than one minute a large fibroid uterus was lying on the patient's abdomen, and in two and a half minutes more it was being carried away in a dish. In less than ten minutes all arteries were tied and the peritoneum was closed over the stump, and the patient was wheeled away to have the abdomen closed by an assistant in an adjoining room, and another important case was being brought in. Kelly has four of the best trained assistants living to-day. Each one of them has himself done the operations in which they assist their master, so that five men are all working hard at once. There is no need to ask for anything; the assistant knows what kind of ligature and needle will be required, and at what moment it will be needed. Instead of handing the operator a ligature, the assistant places it on the artery and the operator ties it. One man cleans the sponges, which are all on forceps holders, and another man sponges, a third holds the abdominal incision open with retractors, and a fourth attends to the ligatures and instruments. The patient is in the exaggerated Trendelenburg posture, so that the bowels are never seen; on the contrary, there is a great vacant space left after the tumor is removed, where the minutest blood vessel and even the ureters can be plainly seen. For it is one of Kelly's cleverest tactics to waste no time tying arteries until he has the tumor out. Three of the four arteries are clamped, only the right

ovarian being tied at first. Dr. Kelly removes the uterus in all cases in which it is necessary to remove the appendages. He has had over a hundred hysterectomies without a death, and his death rate for all cœliotomies (abdominal sections) is less than 3 per cent. He uses medium Chinese silk for tying arteries, and fine silk for sewing the peritoneum both of the pelvis and also of the abdominal incision, which is closed in three separate layers. First, the peritoneum is brought together with a running suture; then the fascia is fastened with buried silver wire about a quarter of an inch apart, and then the skin is sewed with silk worm gut. Several cases were seen which had been closed in this way several weeks previously, and there was perfect union, and the buried silver wire did not seem to cause any inconvenience. It could barely be felt beneath the skin. This method of closing the abdomen has reduced the percentage of hernias to the vanishing point. But it is in his original studies on catheterization of the ureters and kidneys that Howard Kelly has scored his greatest success. With patient in the knee chest position he empties the bladder of urine and fills it with air so that it is like a small balloon. By means of his speculum and the laryngoscopic mirror the light of the incandescent lamp is thrown in, and every part of the bladder wall can be distinctly seen, even the little spurts of urine or pus or blood in case of disease of the kidneys is perceived escaping from the right or left ureter, or both. Then with due aseptic precautions he runs up the ureter into the pelvis of the kidney a catheter two feet long, with which he empties cases of pyo nephrosis, and then washes out the pelvis of the kidney. He has thus cured several cases of diseased kidney which in former times would have had to have the organ removed, or die of suppuration. He demonstrated this method for us several times with the greatest ease. He also showed us the walls of the sigmoid flexure of the intestine with his long rectal speculum over a foot long. Dr. Kelly is just completing a work on Gynæcology, which will be every word original. It will give his own opinions founded on his own experience. His revenue from private practice is said to reach a fabulous amount. We were curious to find out his secret of keeping his health in spite of such a tremendous amount of work, and to our surprise we discovered that it was nothing more nor less than the bicycle. Twice a week he devotes the whole afternoon to a long ride out in the country. One would think that his time would be so precious that he could not spare any time for the care of his health. But in this again he shows his great wisdom. Without those few hours of muscular exercise and deep breathing his strength would break down and his brain give out; but with it we

find him fresh and full of energy after two or three big operations; and he told us that he rarely felt tired. He keeps himself in fine physical condition. If we had learned nothing else, that alone was worth the trip to Baltimore. He has two secretaries, and he devotes two mornings a week to dictating to them, two other mornings a week at the Johns Hopkins, and two other mornings at his private hospital and office. The world has heard something of Howard Kelly already, but unless we are mistaken we will hear a great deal more of him yet, if his life is spared. There is much more that we would like to mention, but our letter has already reached considerable proportions so we will close, reserving the rest for another communication.

Yours truly,

A. LAPHORN SMITH.

THE MEDICAL COUNCIL.

The newly-elected Ontario Medical Council meets to-day, and very general interest is felt as to what may be the results of the session. As compared with that of its predecessor, the personnel of the appointed and homœopathic contingents remains practically unchanged, while that of its elected element is transformed—only four of the former members having secured re-election. The thirteen new men, and at least two of those re-elected, are pledged to favor very important and organic reforms, especially in the direction of retrenchment, the restriction of the council privileges at present held by the universities and medical schools, and the elevation of the council's standards of educational requirements for matriculation and graduation. As fourteen of the thirty-one persons who compose the council are quite irresponsible to the profession—being beyond its reach through any available or effective channel of control—those striving for projected reforms may find them unattainable. If, however, they can show that the measures they propose are reasonable and just, that they are clearly devised in the interests of the profession, and that they are calculated to promote the safety and well-being of the public, it is scarcely conceivable that any of the elected members will be unwise enough to oppose them, and thus fly in the face of their constituents. Such measures may also be expected to win the support of the homœopaths in the council, who are more or less committed in favor of economy and educational advancement.

Strange to say, the university and school appointees, who until quite lately have been generally regarded as the special advocates of more advanced educational standards, have in the Medical Council invariably cast their influ-

ence in the opposite scale. It is with this educational aspect of the dispute between profession and schools that the public is chiefly concerned. It is not well, in the interests of the public, that professions like medicine and law, whose members necessarily have themselves to determine the nature and extent of the services they shall render to the sick or to the litigious, should be permitted to become greatly over-crowded. In this respect, the highest point compatible with the safety and well-being of the community has, in the medical profession, long since been reached and passed. The province is over-stocked with doctors, and would fain see the future annual output improved in quality, and very largely lessened in quantity. We look to the council at its present session to perfect measures that shall secure this end. If it does not do so, the profession itself, or the Defence Association, which has already inaugurated and secured many useful reforms, must take the initiative, and in doing so may rest assured that the movement will command the approval of the public and the support of the Legislature.—*Toronto Mail*, 12th June, 1895.

BOOK NOTICES.

MEDICAL GYNÆCOLOGY. A treatise on the Diseases of Women, from the standpoint of the physician. By Alex. J. C. Skeene, M.D., Professor of Gynæcology in the Long Island College Hospital, New York, formerly Professor of Gynæcology in the New York Post-Graduate Medical School; Gynæcologist to the Long Island College Hospital; Ex-President of the American Gynæcological Society, etc.; with illustrations. New York, D. Appleton & Co., 1885. Price \$5.00.

The author says that the growth of gynæcology in recent times has been phenomenal, especially in the direction of surgery, and that in this respect its progress should have been remarkable is not surprising in view of the great advance made in general surgical knowledge during that period. It appears in medical literature that surgery has been more assiduously cultivated than medicine. This may have induced some to push the surgical treatment of diseases of women to extremes, and, in fact, internal medicine. On the other hand, physicians who have been over-confident in their art may have failed occasionally to do surgery full justice. This is evidently responsible for the frequent and often illogical discussions which have been going on in the past few years regarding the so-called radical and conservative practice in gynæcology. The science and art of medicine and surgery in their highest development should be above all

party questions, and those who place a just estimate on both branches of the healing art, and employ them without predilection and prejudice, are the most successful and reliable. Unreasonable devotion to either medicine or surgery is wrong. The consciousness on the part of the author of this status of Gynæcology is responsible for the inception and genesis of this work. How far he may be right in thinking that there is room for a new work on the medical branch of gynæcology, and to what extent the requirements have been met in this volume, the members of the medical profession alone can decide.

The volume is arranged in three parts: Part I deals with the primary differentiation of sex, development and growth during early life, and the condition favorable to the evolution of normal organization, and the attainment of a health in purity. This involves the discussion of heredity and environment, including care in childhood, mental and physical education and culture, together with the necessary additions during the transition from girlhood to womanhood.

Part II treats of the characters of sex, the adaptation of structure to function, the predisposition to particular diseases and the causes of certain afflictions peculiar to women. Then follow all the functional and organic diseases common to the period of active functional life of woman, which commonly come under the observation and care of the physician.

Part III discusses the menopause of the transition from active functional life towards advanced years; and then the diseases of the latter period. The great object in the first part of this work is to consider as fully as possible the ways and means of developing vigorous organizations and maintaining healthy functional life. This necessitates attention to hygiene at all periods, and all that the term implies.

We have taken the above notice of the work from the author's preface; but after having read over several chapters very carefully, we feel justified in saying that the author has more than accomplished the object which he had in view. We have heard already more than one practitioner in this city speak of this work as the most valuable addition to our medical textbooks that has yet appeared, and we feel confident that when this book becomes more generally known by, and placed in possession of, the general practitioners throughout the country, there will not only be many less cases of diseases of women, but also many of those cases which do exist will be cured by medical treatment, instead of being allowed to drift on to the more advanced stage when nothing short of surgery will afford relief.

Little need be said of Dr. Skeene's vast experience; he is not only one of the fathers of

gynæcology in America, but, owing to the prominent positions which he has occupied in the teaching faculties of New York and Brooklyn, he has kept pace with the great advances which gynæcology has been making during the last ten years. We have had the pleasure of seeing him at his home and at his work, and can testify to the great esteem in which he is held as a teacher, by his large class of students and young physicians. When one sees the number of patients he has to attend in a day, one wonders where he finds the time to accomplish such a task as the writing of this and his other books. It is a lesson to younger men to know that the veteran author does his writing between six and eight a.m., while younger men are still asleep. In two hours a day for three hundred days in the year a vast amount of work may be accomplished.

This book of Dr. Skeene's should be in the hands of every family physician who is called upon to treat medical diseases of women and girls, and his purchase will amply repay him for the expense incurred. It may be obtained from Messrs. Morang & Co., of Toronto, agents for the Appletons.

A MANUAL OF THE MODERN THEORY AND TECHNIQUE OF SURGICAL ASEPSIS. By Carl Beck, M.D., Visiting Surgeon to St. Mark's Hospital and to the German Poliklinik of New York City, etc. With 65 illustrations in the text, and 12 full-page plates. Price, \$1.25 nett. Philadelphia: W. B. Saunders, 925 Walnut street, 1895.

The author says in his preface:—"This Manual of Surgical Asepsis, which is based upon the method employed in my teaching upon the treatment of wounds at the New York Post Graduate School and at St. Mark's Hospital, was written in compliance with the solicitations of those practitioners whom it has been my pleasure to instruct at these institutions.

"As it is only within a comparatively few years that bacteriology has revolutionized the practice of surgery, it is natural that even the most excellent surgical text-books lack full and detailed descriptions of the theory and technique of surgical asepsis.

"While the leading idea has been to write a *practical* book that would in a measure meet the deficiency of the larger works on the subject, yet *theory* could not entirely be omitted, inasmuch as most of the technique of modern wound-treatment is founded upon experiments conducted in the laboratory. But only those experiments have been accentuated whose comprehension is indispensably associated with that of technique, and whose results can be corroborated by clinical observation. Hence in this treatise there has been followed a plan somewhat different from that of my eminent predecessors, Schimmelbusch, Braatz, and Terrier.

"Certain details which may seem unimportant upon superficial consideration, but the neglect of which is incompatible with surgical success, have been given more prominence than is ordinarily accorded them in their connection with the subject of asepsis—for instance, the descriptions of the technique of suturing and of disinfection, the dressings employed for the different regions of the body, the maintenance of asepsis in private practice, etc.

"An important feature of this book, or at least so regarded by the writer, is that a stricter line of demarcation than usual is drawn between wounds aseptically performed by surgeons and those otherwise inflicted or those dependent upon inflammatory processes. In the latter category *antiseptis* asserts its prerogatives, but only as subordinate to asepsis. As an expression of the position thus assumed, were written the sections on Infected Wounds, on Open-wound Treatment, and on the Renewal of Dressings.

"Among the antiseptic drugs, iodoform is assigned the most prominence, and in regarding its extensive employment by the profession, its advantages and disadvantages are thoroughly discussed. The question of tuberculosis, that presents itself so frequently to practitioners, has also been exhaustively considered in its relation to asepsis. An entire section is devoted to anæsthesia, since, irrespective of its vital importance in most surgical procedures, its insufficient mastering is apt to impair seriously the aseptic condition of the patient."

The author points out the absolute necessity for eternal vigilance, as the price of safety, and truly says that if 99 points of asepsis have been observed and only 1 forgotten, the result will be the same as if the whole 100 had been neglected. Students, assistants and onlookers must never for a moment forget that the success of the operation may depend on any one of them. For this reason all those who take an interest in the progress of surgery would do well to study this work before attending an operation in any capacity.

A GUIDE TO THE ASEPTIC TREATMENT OF WOUNDS. By Dr. C. Schimmelbusch, Assistant in the Royal Surgical Clinic of the University of Berlin. Preface by Prof. E. Von Bergmann. Translated from the second revised German edition with express permission of the author, by Frank J. Thornbury, M.D., Lecturer on Bacteriology, University of Buffalo, N.Y., Super-vising Microscopist in the Bureau of Animal Industry, U.S. Department of Agriculture; late Senior Resident Physician Cincinnati Hospital, Cincinnati, Ohio. With 43 illustrations. G. P. Putnam's Sons.

The author and the translator have both enjoyed exceptional facilities for becoming thoroughly acquainted with modern aseptic

methods in Von Bergmann's clinics, and we can assure our readers that the work before us leaves no questions unanswered concerning asepsis upon which in modern surgery almost everything depends. The preparation of silk, catgut, instruments and dressings is fully described, and, as Bergmann says in the preface that he does not have time to give these details during his clinic, he recommends his pupils to learn them from this book prepared by his assistant. We have derived the greatest pleasure in reading this small book, and strongly recommend it to everyone who does any surgery at all. The mechanical features, such as fine paper, good type and pretty binding, make the volume very attractive.

PUBLISHERS DEPARTMENT.

A WOMAN'S MIDSUMMER MAGAZINE.

The safeguards of marriage are treated of by Dr. Parkhurst in the July *Ladies' Home Journal* in a way that will strike many as particularly direct and to the point. Never, perhaps, has the marriage question been so well dealt with. The romantic life of the widow of Octave Feuillet is charmingly treated by Madame Blanc, under her pseudonym of "Th. Bentzon," while Hezekiah Butterworth tells "The Story of Brook Farm," that unique New England experiment which is unknown to a large part of the present generation. The illustrations show "Brook Farm" as it is to-day. The musical features of this issue are many, the most valuable probably being an article on "The Voice of Highest Range," by Frederic Peakes, one of the best known authorities on voice culture, and Mrs. Garrett Webster's carefully-prepared article on "The Pay of Women Musicians." Instrumentalists are remembered in a set of very melodious waltzes called the "American Girl Waltzes," by Mr. Richard Stahl, the well-known composer. Ella McKenna Friend writes of the home life and personality of Rosa Bonheur, the celebrated animal painter, and a recent portrait is given of "The Recluse of Fontainebleau." Caroline Leslie Field's short story, "Miss Teele, of Gilbury Green," is a delightful bit of simple New England fiction. The editor discusses "The Blot on Our American Life," which he claims is the disrespect shown everywhere for persons in authority both in political and civil life. Robert J. Burdette furnishes an inimitable article entitled "A Woman in a Raspberry Patch," and John Kendrick Bangs is irresistibly funny in his report of the eighth meeting of "The Paradise Club." Dainty housekeepers will be charmed with Mrs. Barnes-Bruce's "A Violet Table Set." Mrs. Mallon's illustrated page tells of "Underwear for the Summer." "Amusing Children in Summer" is the title of a page devoted to outdoor and indoor summer parties for children, and serves to add attractiveness to an issue which goes out to its hundreds of thousands of readers in a dainty cover exquisitely illustrated by W. L. Taylor. *The Ladies' Home Journal* is published by The Curtis Publishing Company of Philadelphia, for ten cents per number and one dollar per year.

DISTURBANCES OF INNERVATION.

Robert B. McCall, M.D., Medical College of Ohio, Cincinnati, now residing at Hamersville, Ohio, writes:—
"My confidence in antikamnia is so well established that I have only words of praise. Independently of

other observers I have proved to my satisfaction its certain value as a promoter of parturition, whether typical, delayed or complicated, and its effectiveness in controlling the vomiting of pregnancy. In cases marked by unusual suffering in second stage, pains of nagging sort, frequent or separated by prolonged intervals, accompanied by nervous rigors and mental forebodings, one or two doses, three to five grains each, of antikamnia promptly changes all this.

"If there is a 'sleepy uterus,' antikamnia and quinine awake every energy, muscular and nervous, and push labor to an early safe conclusion. Indeed, in any case of labor small doses are helpful, confirming efforts of nature and shortening duration of process.

"I have just finished treatment of an obstinate case of vomiting in pregnancy. A week ago the first dose of antikamnia was given, nervous excitement, mental worry and gastric intolerance rapidly yielded. This case was a typical one, and the result is clearly attributable to the masterful influence of your preparation.

"If there is any one drug or preparation that can be made to answer every need of the physician, for the correction of the multitudinous disturbances of innervation that occur in the various diseases he is called upon to treat, that one is antikamnia."

LITERARY NOTE.

A new book on Canada, by Dr. Bourinot, will shortly be issued. It is entitled "How Canada is Governed," and gives in plain, simple language a short account of the Executive, Legislative, Judicial and Municipal Institutions of the Country, together with a sketch of their origin and development. The book will be illustrated with numerous engravings and autographs, and being the work of so eminent an authority as Dr. Bourinot, will be indispensable to those who wish to be well informed about the affairs of the Dominion.

THE COPP, CLARK COMPANY (Limited) are the publishers.

The weekly issues of *Littell's Living Age* are delightful companions at all seasons of the year. The reader can always depend on them to contain just the right thing to suit the present mood. There is so much variety—the range of subjects is so wide, as will be seen from the following partial table of contents of the July number.

"Walter Savage Landor," by John Fyvie; "Italian Disunion," by Jos. Crooklands; "A Journey to Scotland in the Year 1435," by J. J. Jusserand; "The Home-Life of the Verneys," by L. B. Lang; "Napoleon at St. Helena. A Reminiscence"; "International Law in the War between Japan and China," by T. E. Holland; "England and France on the Niger. The Race for Borgu," by Captain F. D. Lugard; "The After Careers of University-Educated Women," by Alice M. Gordon; "The Poetry of Keble," by Arthur Christopher Benson; "Advertising as a Trespass on the Public," by Richardson Evans; "Concerning Duppies," by Alice Spinner; "Montaigne's Adopted Daughter," by F. J. Hudleston; "Napoleon on Board H. M. S. Bellerophon"; "The Campaign of Flodden," by C. Stein; "The Attack on Tibet," by D. Gath Whitley; "Of Cabbages and Kings"; "Isandhlwana, Zululand, 1894," by E. A. Hirst; "Killed by the Baltic Canal," by Poultney Bigelow, besides several short stories by the best writers, and poetry.