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Original Communications.

HYOSCINE.*

BY J. T. FOTHERINGHAM, M.A., M.D., TORONTO.

This drug, as is well known, is one of the alkaloids of *Hyoscyamus Niger*, Henbane, nat. ord. *Atropaceæ*, occurring in both leaf and seed. It is amorphous or crystalline, and is isomeric with hyoscyamine, its sister alkaloid, with atropine, and with duboisine. The formula, $C_{17}H_{21}NO_4$, is also identical with that of scopolamine, a very powerful alkaloid obtained from various kinds of *Scopolia*, nat. ord. *Solanaceæ*, a family of which capsicum and bittersweet are familiar members. The whole of these isomers belong to what is known as the tropeine series of alkaloids, are difficult of differentiation chemically, and are well known as powerful, depressant poisons, exhibiting, all of them in varying degree, the chain of symptoms with which as students we were made academically, if not clinically, familiar by the formula of the "four D's"—Dryness, Dilatation, Dizziness and Delirium. They constitute, however, a beautiful example of the fact that drugs, however apparently exactly identical, do clinically display distinct divergence of action, as we shall see of hyoscine if we recollect, without taking time to mention them, the physiological effects of, say, atropine. Scopolamine, for instance, is used as a mydriatic, and is most rapid in its action if instilled into the eye in amounts of one minim of one-tenth of one per cent. solution. A solution stronger than two-tenths is very apt to cause poisoning. The rapidity of its action causes the eye specialist to use it when prompt and rapid effect is desired, as in early

* Read before the meeting of the Trinity Medical Alumni Association, May 31st, 1899.

stages of, say, plastic iritis, or to tear down posterior synechiæ, but where more prolonged and gradual effect is desired atropine is preferred. This clinical difference of effect of drugs otherwise indistinguishable no human ingenuity is likely ever to be able to explain. Let us leave the facts and the problem to the scientific acumen of the un-Christian Anti-Scientists who revel in the maunderings of Mary Baker Eddy, C.S.D.

The first important communication on the subject of hyoscine was made to the German Chemical Society, in 1880, by Professor Ladenburg.

Hyoscine is not used, the writer thinks, so frequently as its merits, in properly selected cases, would justify. The salt commonly employed is the hydrobromide in doses usually of $\frac{1}{100}$ grain. The profession at large are aware that it is used in the asylums for the insane, in maniacal cases, but are not aware of the valuable service it can render in general practice. The writer has, within the past five months, used it with marked benefit in several cases widely differing in character, and has been impressed with its good results.

CASE 1 was one of acute senile decay in an old lady of upwards of eighty years, who had been in excellent health till severely shocked by the violence of a relative who had appeared in an intoxicated condition and made noisy and threatening demands for money. She fell rapidly into a state in which death seemed imminent, very slow and irregular pulse, dry, brown tongue, obstinate wakefulness and night-terror, long fits of screaming, with almost total suspension of assimilation and excretion. Hyoscine hydrobromide $\frac{1}{100}$ gr. by mouth in the evening, repeated in two hours when necessary, with another $\frac{1}{100}$ gr. in the morning, controlled this cortical activity excellently and promptly whenever given, and in two weeks or so, with nux vomica, and proper attention to feeding and excretion, with the occasional use of a mixture containing digitalis, nitroglycerine, and ammonium bromide, she made an excellent recovery.

CASE 2.—A. B., female, aged 67, after successfully rounding the corner from severe lobar pneumonia, developed meningitis. The delirium of this condition, whether violent and noisy, or low and muttering with plucking at the bedclothes and incontinence of bladder and bowel, was most favorably influenced by $\frac{1}{100}$ gr., repeated if needed in two hours. The main danger, cardiac depression, which one might have feared in each of these cases, was not apparent at all. Indeed, in the second case the heart, which had behaved abominably before the crisis of the pneumonia occurred, behaved admirably during the meningitis, in spite of the hyoscine.

CASE 3 was one of mild hysteria in a young married

woman. Every evening about bedtime a restlessness would come on, preventing sleep, purely emotional, not intellectual nor volitional, with no apparent cause. Nutrition and elimination were normal, but there was a general lack of initiative and of nervous energy, nervous debility showing itself as usual by nervous irritability. Hyoscine $\frac{1}{100}$ gr. acted excellently here again, not as an active hypnotic, but allowing sleep by checking cortical activity. This good effect was in this case somewhat transient, disappearing in a few days.

CASE 4, seen in consultation with Dr. C. R. Sneath, was one of very severe hysteria in a girl of about eighteen. The outlying symptoms noted in my casebook, apart from some very peculiar motor and sensory disturbance, with which I shall not trouble you, were as follows: "Ideation—disordered, *bizarre*, hysterical, very introspective and emotional, but not delusional, though very nearly so." Hysterical photophobia, aphonia and paresthesia were exceedingly well marked, and all the reflexes, both deep and superficial, were greatly exaggerated. Dr. Sneath has kindly reported the effect of the hyoscine which I recommended, as follows: "*Pulse*—at first quickened, then slowed and force lessened. After three days' administration of $\frac{1}{100}$ gr., night and morning, the pulse fell, ranging from 56 to 60, and became very soft and irregular. On omitting one daily dose the pulse regained its former action. *Nervous system*—the drug induced quiet sleep, dispelled the very vivid day-dreams, and quieted the tendency to start violently and scream at the least unexpected noise; the photophobia soon disappeared almost entirely (just the opposite effect to that to be expected if one considers merely the enlargement of the pupil and the admission of more light); the muscular twitching still remains in a slight degree, and the patellar reflex is less exaggerated."

CASE 5, seen in consultation with Dr. Adam H. Wright, was one of acute rheumatic exacerbation of an endocarditis long previously existing in a youth of twenty or thereabouts. The heart was excessively hypertrophied, and the sleeplessness and mild delirium which accompanied the circulatory disturbance in the brain were very distressing. Morphine was tried with fair effect, especially when pushed to $\frac{3}{4}$ gr. or 1 gr. each night. Every one knows the reputation of morphine as a steadier of the heart and as a hypnotic in such cases, but on this occasion the addition of the hyoscine is reported to me as having produced a decided improvement on the action of the morphine, better sleep, and less delirium than had been the case during the nights when the morphine alone had been used. The dose was pushed to $\frac{3}{100}$ gr. during the night, with no depressing effect on the heart. Indeed a hypertrophied heart,

such as the one in question, is often the better of depression, provided it be not secured at the expense of the cardiac centre mainly.

Cases even so divergent as these do not indicate the whole range of usefulness of the drug. Hare says that it is "certainly of great value in spermatorrhea and nocturnal emissions." Also that it acts mainly on the cerebrum (he might have said the cortical areas), and that "it is of value as a hypnotic only in a very limited class of cases, but in this class generally acts most favorably." These are cases of insomnia due to acute mania, delirium tremens, hysteria, or similar cause—one might say, perhaps, cases in which there is functional over-activity of the higher centres without undue depression of the vegetative centres; for experience in insane asylums has shown it to be injurious to melancholics, and in general paresis, chronic mania, epilepsy, and dementia it is no better than chloral, but is apt by constant use, at least in some cases, to increase excitement. Peterson (*N. Y. Med. Jour.*, October 11th, 1890) found it very efficacious in controlling the tremor of paralysis agitans.

Objections to the drug are, first, the uncertainty of its action, a peculiarity common to all drugs, the brunt of whose influence falls upon the nervous system. Idiosyncrasy may cause alarming cardiac, respiratory, or spinal depression. Like all drugs from the Atropaceæ, it dilates the pupil, dries up the throat, and if pushed may cause dizziness, delirium, and an erythema of the skin. Some authorities have insisted that it must be given by hypodermic injection, but the writer has seldom so used it, and has been amply satisfied with its action given by the mouth. It may cause croupy breathing, probably from laryngeal dryness, and, in spite of the benefit evident in the case of insomnia from cardiac disease detailed above, it is usually considered less safe than morphia in such cases. Hare says that "the applicability of the drug is very limited indeed, and untoward effects are common." Without pitting a limited experience against Hare's dictum, it seems to the writer that that dictum is too strong, and that the drug is deserving of more frequent use, particularly in meningitis and conditions of cortical over-activity, so long as we bear in mind that its untoward effects are to be found chiefly in the three directions of the cerebration, the circulation, and the respiration.

SURGICAL GYNECOLOGY AMONG THE INSANE: RIGHT OR WRONG?

BY A. T. HOBBS, M.D.,
Asylum for the Insane, London, Ont.

Some four years ago the medical staff of the Asylum for the Insane, at London, Ontario, were impressed with the idea that among the women congregated in that institution there must exist many cases of hitherto unsuspected pelvic disease. The only reliable method to ascertain the correctness of this impression was by actual examination of the most likely cases. After close scrutiny of the history of many of the women a number were selected and underwent a thorough examination while under the influence of an anesthetic.

The numerous pathological lesions diagnosed by this mode of investigation surprised us, and the good results following appropriate treatment of these diseases exceeded our most sanguine expectations.

The presentation of this surgical work and its sequences before various medical societies, has aroused bitter opposition from a section of the profession devoted to the care of the insane. The motives of the investigators have been impugned, and the object of the surgical work has been so persistently misrepresented that an erroneous conception of the whole subject has gained credence, to some extent, among a number of our Canadian physicians. The purpose of this essay is to place the pros and cons of the subject before the profession at large, the proper judges to decide as to whether we are right or wrong in the course we have been pursuing.

Among the objections made to the work are these: "*Wholesale mutilation of helpless lunatics*," "*Criminal to impose such a risk upon an irresponsible being*," "*It is high time for the profession to call a halt in its mad career of pelvic mutilation.*" We are characterized as "*Meddlesome gynecologists*," "*Wages his most relentless surgical fury on the ovaries*," "*Never fails in his diagnosis for he always finds what he searches for*," "*Statistics published prior to a two years' test of their efficiency are comparatively worthless*," "*There is no room for such a fad*," "*We have no gynecologists connected with this hospital; if we had we would certainly have more cases of disease of the female genitals*," "*Do not know of any case of insanity due to disease of the genital organs*," "*The mania for removing ovaries is a crying evil.*"

These objections have been directed at the gynecological surgery done among the insane at the London and other asylums. Such criticisms are illogical, because they are foreign to the subject; unfair, because they misrepresent what has

been done; untruthful, because they charge us with doing things that we have not done. They impugn the motives of those engaged in the work and question the results obtained by them. The critics freely admit, on the one hand, that the work should be done, and the next moment they denounce us for having the timerity to do it. They institute an inquiry on purely speculative ideas and receive shoals of negative opinions. When I say negative, I mean the endorsation of their standpoint from those having little or no experience of the subject. What estimated value can be placed upon negative opinions when weighed against positive statements: the finished product of actual experience? We deny the right of any one to pose upon theoretical grounds alone as a critic of gynecology among the insane. As all the objectors have arrogated to themselves the position of judges on this subject, it is only fair to ask them to produce the premises upon which they have qualified themselves to act as arbiters of the treatment of gynecic disease among the insane.

What have our critics done to qualify themselves to sit in judgment upon us? What patients, and how many, have they examined for pelvic disease? What gynecologists have they called in in consultation? What have they found? Do they expect us or the profession at large to be guided by their mere opinion resting on nothing, as against the evidence of our actual investigation?

In spite of the continued publication of the restoration to health of many cases resulting from the removal of physical disease through the agency of gynecological surgery, the critics persist in ignoring the facts and reiterating the absurd cry that "we operate for insanity." Unprejudiced observers, upon perusal of the cases as given below, will at once admit the fallacy of this assertion. The text of our work has always been that "*these operations are done primarily and specifically for the removal of physical diseases and the promotion of bodily comfort.*" Why do these critics persist in repeating this old, baseless plaint "that we operate for insanity"? Why will they not point to even one case in which an operation was done for, or because of, the mental condition? They cannot prevent the profession from obtaining the true status of the work.

"That we look for disease and find it" is the sarcastic comment advanced by one critic as to the manner of our gynecological diagnosis. This criticism is made without the slightest knowledge of the facts, and casts doubt upon the conjoint opinion of at least two or more medical men. No operation is done in the London Asylum unless my diagnosis of the disease is agreed to by our skilled consulting gynecologist, Dr. Meek.

The confirmation of the diagnosis by actual demonstration, at the time of operation, is also witnessed by our Superintendent, Dr. Bucke, and other medical men (often including the patient's family physician), and should be sufficient proof as to the genuineness of the presence of disease.

But this criticism, though heedlessly and wantonly made, sinks into comparative insignificance compared with the deliberate and outrageous charge that in the performance of these operations we are guilty of "wholesale mutilation of helpless lunatics." This rash accusation, emanating from no less an authority than a prominent Canadian alienist, is too serious to dismiss lightly. It passes the boundary of legitimate criticism. Only one interpretation can be placed on it, and that is, that in carrying on our surgical gynecology we are criminally maltreating our patients. To this charge there can be but one answer: "We are right in doing this class of surgery or we are wrong." If we are doing those things we ought not to do, the sooner we know it the better. We must stop or be suppressed. If we are right in making pelvic examinations in insane women and surgically removing gross disease, when it is conclusively demonstrated, then the position so autocratically adopted by our critics is unenviable. It places them before the profession in the light of non-progressionists. It publishes the fact that they are unable to appreciate a valuable method for the betterment of the health of their charges and the opening of a possible avenue for their future mental recovery. More serious still, it exposes a deliberate attempt to strangulate a scientific advance upon the obsolete methods still so largely in vogue in many asylums of to-day.

We appeal to the broad-minded profession at large, whose consultants we are, as to whether we are right or wrong in this matter. We ask: Is it wrong to curette a uterus for endometritis or sub-involution? Is it detrimental to the health of a patient to repair a lacerated cervix or amputate a diseased one? Is it mutilation to extirpate tumors malignant and benign? Is it criminal to surgically unsex an insane woman when the unsexing is already done by the disease which we operate to cure? Is it unscientific to replace a dislocated or prolapsed uterus, and is it illogical to restore a torn perineum? That we are guilty of doing these things we do not deny. If this is to be termed mutilation of helpless lunatics, then the sooner gynecology becomes an extinct art the better. But if these operations are legitimate and proper when done by surgeons universally upon sane women, then why are they stigmatized as "mutilation" when done upon their insane sisters for precisely similar diseased conditions?

I state positively that each operation performed in the London Asylum was undoubtedly indicated by the disease present, irrespective of the insanity complication. Knowing that these diseases are not infrequent among these people, as will be shown, would it not be a grave direliction of duty to deny to those unfortunates the benefits of decent surgical treatment? Would it not be degrading to our manhood and lowering to our professional self-esteem to leave undone those things that we ought to have done? It would be plain neglect of duty. The ridiculous sentimental cry of "mutilation" should not prevent true surgeons from doing their whole duty towards their patients.

Let not some alienists forget that they are living in modern times, and that every branch of scientific art is advancing. It will not suffice to hold up their hands and deplore the increase of insanity and the overcrowding of our asylums. The world will demand of them an account of what they are doing to increase efficiency in their methods of treatment and increase their ratio of recoveries. The percentages of fifty years ago will not satisfy the profession of to-day. Some evidence of practical improvement all along the line of treatment will be demanded of those who have care of the insane. Mediæval methods must give way to better and more rational therapeutics. Close incarceration and restraint must be relegated to the past. Massage, stomachic investigation, serum therapeutics, and scientific surgery will, in spite of the Rip Van Winkles, supersede ancient and crude modes of treatment. The axiom that there is no remedy for the cure of insanity other than through the prior restoration to bodily health of the deranged individual, will universally be assured by alienists. Let, then, our critics memorize a living principle, "*Mens sana in corpore sano.*"

Subjective symptoms, as portrayed by the sane, indicative of internal disorders, are, as a rule, absent in the insane when afflicted with similar derangements. Their delusions, illusions and hallucinations, their restlessness and excitability, and their moroseness and secretiveness subvert ordinary physical sensations. Interrogation of the various bodily functions is, for the same reason, valueless. The suppression of subjective symptomatology among the insane is no proof of the absence of physical disease. Demonstration by practical investigation is the only reliable method to determine the presence or absence of disease in an insane person's system. Injuries to the skull, pneumonic lesions, cardiac murmurs, derangement of the alimentary tract, changes in renal secretion and diseases of the pelvic organs can only be discovered by actual examination. When any of these physical lesions are located in an insane

patient no one questions the importance of remedial treatment. Our critics adopt the peculiar attitude of commending the empirical drugging and applauding the experimental dosing of those poor helpless lunatics with nauseating extracts, attenuated toxines and doubtful serums in the hope of curing them of their bodily ailments and through it procuring their restoration to sanity. But if these remedies utterly fail in removing pathological lesions and surgery steps in and succeeds, these critics raise their voices and loudly denounce in unmeasured terms the presumption of the psychogynecologist who cures mental disease by way of the pelvic cavity. Their position is certainly the essence of "*reductio ad absurdum.*"

It is regrettable that the majority of the alienists lack training in surgery, especially gynecology, because where so many women are congregated together as there are in asylums there must be a large number of cases of unsuspected, therefore untreated, pelvic disease. Furthermore, it is to be deplored that asylum authorities fail to recognize this important fact and provide ways and means for its abatement, the fact, namely, that there are probably immense numbers of insane women in the asylums of Canada and the United States to-day needlessly confined, who would be restored to their homes and families through the adoption of this line of investigation and treatment alone. As it is, this section of these unfortunate exiles, unable by mental disability to make known their ailments, are doomed to suffer untold misery as long as existence endures.

THE WORK THAT IS CRITICISED.

We have, up to date, examined 187 selected insane women at London Asylum to ascertain the existence or otherwise of disease of the pelvic organs. In 163 women there were diagnosed distinct pathological lesions and abnormalities. Furthermore, it was necessary, in our opinion, on physical grounds alone, to remedy or remove such disease by appropriate surgical treatment in 155 of these patients.

Without entering into detail of the many lesions diagnosed and removed in these 155 women, a general presentation of the gynecological work done will give an idea of the importance of the treatment carried out.

Tumors, malignant or benign, and other serious lesions involving the pelvic organs necessitated the performance of 22 hysterectomies, 12 of which were abdominal and 10 vaginal. Three deaths followed these operations—one from exhaustion on the third day, the second from accidental hemorrhage (brought about by patient) on the seventeenth day, and the third from septic pneumonia on the seventh day succeeding the

operation. The latter case was *in extremis* at time of operation, there being pus invasion of every organ of the pelvic cavity.

Ovarian diseases, including tubal, dermoid cysts and hematoma were the lesions removed in 21 cases, one of which died of pneumonia on the twelfth day.

In two cases of tubercular peritonitis the abdominal cavity was opened and flushed with warm salt solutions.

Dislocated and retro-displaced uteri were corrected and replaced by 42 Alexander operations and ventro-suspensions.

Injured and diseased uterine cervices received appropriate surgical treatment in 48 women so affected.

In 31 cases, chronic endometritis, metritis, and subinvolutions of the uterus were attended to.

Lesions of the vagina and perineum, including fistulæ, existed in 22 cases. These lacerations were repaired and the fistulæ closed. It may be stated that many of these patients had two or more lesions needing two or more operations to complete the treatment.

Mental recovery followed the physical restoration to health in 60, or 38½ per cent.; mental improvement in 40, or 26 per cent.; no mental improvement was observed in 51, or 33 per cent.; and 4, or 2½ per cent., died. It may be said that 49 of the 100 women who either recovered or improved mentally, had been insane two years or over prior to surgical treatment. The majority of these patients (many of them were apparently hopeless wrecks in body and mind) have returned to their homes and are enjoying good mental and bodily health; while it is as certain as anything can be that were it not for this surgical treatment many of them would have remained incarcerated for life as helpless, hopeless lunatics.

Before concluding, let me quote from Dr. G. Alder Blumer's report of Utica Asylum for the year 1897. He says: "It is high time that the specialty of mental disease was taken out of the slough of mediæval mystery and put upon a plane with other ailments of the body; high time, too, that physicians of the mind should realize that they are physicians of the body."

ON THE USE OF RUBBER SPLINTS IN THE TREATMENT FOLLOWING INTRA-NASAL OPERATIONS.*

BY J. PRICE-BROWN. TORONTO.

In the August number of the *Journal of Laryngology, Rhinology and Otology*, Richard Lake had a short article on the use of rubber splints in intra-nasal work. I was impressed with his views at the time, as they seemed to supply a much-needed want.

In my own experience covering a period of more than ten years, devoted to special work upon diseases of nose and throat, the evil effects of septal deformity could in the large majority of cases be removed by widening the narrow nasal passage, without resorting to fracturing or straightening the septum itself. Let a clear open chink be made if only wide enough to prevent accumulations of mucus between the turbinateds and the septum, and the catarrhal difficulties caused by the obstruction will, after healing of the mucous membrane, be in a great measure removed.

We rarely find even in examination of healthy individuals that the two nasal passages are approximately alike, the distance between the septum and middle and inferior turbinateds on the right side differing from that on the left in the majority of instances. Still, provided the narrow passage is open, a considerable difference in the lateral dimensions of the two will have little or no injurious effect upon the secretions of the mucous membrane.

Disease, however, arises when from one cause or another the septum touches the turbinated, or when the chink of the inferior meatus becomes so narrow that the mucous secretions accumulate in the passage, thereby inducing post-rhinal catarrh and preventing normal respiration on that side. In dealing with these cases, it is not the operative but the post-operative treatment that I have usually found the most troublesome. By saw or knife, drill or scissors, or curette, single or combined, the projecting spur or ridge might be removed; synechiæ connecting the turbinated with the septum could be excised; or a partial turbinectomy when necessary might be performed; but to procure smooth equable pressure upon the incised tissues during the process of healing has been a much harder matter.

Some years ago a paper of mine on "Silver Tubage in

*Read at the Annual Meeting of the American Laryngological, Rhinological and Otological Society, in Cincinnati, Ohio, June 3rd, 1899.

Certain Cases of Septal Deformity" was read at the Laryngological Section of the American Medical Association in San Francisco, dealing to some extent with this matter. In many cases these silver tubes are useful, but in many others they are inapplicable; and in the latter class in which the chink can only be a narrow one at best, I think that rubber splints, made as Lake advises, from thick rubber sheeting, do better work than anything else we have at our command. Their surfaces are smooth, compressible, and elastic; they can be readily cut to the required shape, and they can be obtained of any thickness we desire.

After cocainizing the parts and coating the plug with vaseline, it can readily be placed in position. Once in, it will not only retain its place, but by elastic pressure, give a smooth and even support to the raw surface to which it is applied, as well as prevent that profuse granulation which otherwise would sometimes occur. At the same time it does not retard the gradual extension of the new mucous membrane, while it moulds the tissues into a smooth and regular form.

The stiff pliable rubber, although not so hard on the surface, nor possessing the polish of the vulcanite, is probably just as impervious to bacterial invasion. Sometimes, however, after prolonged use, it will acquire a peculiar unpleasant odor, in part arising from the rubber itself. In these cases new splints or tampons should be substituted for the old ones. As I have used the rubber plugs in a goodly number of instances, I might briefly quote the following ones from my case book.

Case 1.—October, 1898. A boy, aged 6, was brought by his mother to the Western Hospital for treatment on account of entire inability to breathe through the right nostril. This had been coming on gradually for several years, occasioned, the mother thought, by a fall on the face when two years old. There was nothing striking about the external shape of the nose. There was, however, a marked curvature of the cartilaginous septum to the right, with a longitudinal ridge at its base. Chloroform being administered, the ridge was excised. Then to lessen the resistance, I cut into the convex surface of curvature of the cartilage from behind forward. In one spot, although guarded by the little finger in the opposite nostril, the knife accidentally penetrated through the septum. Not heeding this, as it would probably unite by first intention, a rubber splint one-eighth of an inch thick, long enough to go beyond the triangular cartilage and as wide as the fossa would admit, was pressed into the nostril. The child was kept under observation, but the plug was not removed for two weeks. It was then found that the perforation had healed and that the nasal passage was patulous. After cleansing, the splint was

replaced and worn for ten days more. The right passage was almost as large as the left, and the patient was discharged cured.

CASE 2.—December, 1898. A gentleman, aged 58, came for treatment for left nasal stenosis and "throat dropping." He stated that thirty years before while at college he went to a surgeon about his nose. The advice he received was that there was a growth in the left nostril, but that it would be a difficult and delicate operation to remove it, and that without it occasioned serious trouble he should leave it alone. He followed the advice given, and it was only during the last few years that it had given much inconvenience. On examination I found a curved septum and a large round cartilaginous spur, filling up the anterior portion of the left nasal cavity. It was pointed, and infringed upon the opposite wall just in front of the anterior end of the inferior turbinated. Behind it the osseous septum was also curved for the greater part of its length towards the left side. With a sharp curved knife I excised the spur deeply, leaving a clean cut surface. As this was followed by profuse hemorrhage, the naris was packed with absorbent cotton. On removing the tampon the following day, I found that the congested walls completely filled the cavity behind the site of operation; so after applying cocaine and thus shrinking the parts, I at once slid in a rubber splint, the end being bevelled to facilitate its entrance. It was made out of sheeting two-eighths of an inch in thickness. Slight irritation existed for a day or two, but this soon passed away. At the end of the week it was removed. By this time congestion was over, the surface was smooth, and it healed without further difficulty, leaving a clear narrow chink.

CASE 3.—February, 1899. A carpenter, aged 23. Had nose broken when a child by a fall, producing partial depression of bridge. For years has had almost complete stenosis on left side, resulting in pharyngeal catarrh and edema of uvula.

Examination.—Right nasal fossa enlarged, presenting concave, book-notched septum on that side. Mucosa healthy and without catarrhal accumulation. On left side, large curvature with cartilaginous spur filling in the passage, together with osseous ridge extending to the posterior choana. In the centre, bony synechia connected inferior turbinated with septum.

The first operation was to remove cartilaginous spur and put in thick rubber splint. Four days later the osseous ridge with synechia was sawed out, and after hemorrhage had subsided, a long splint, extending to posterior naris, was inserted. For a few days it was not disturbed. Then it was taken out daily, and after being cleansed, returned. The excisions in the case were very extensive. Still, in six weeks the healing was very

satisfactory, resulting in a clear chink from end to end of the passage, with re-formation of mucous membrane.

CASE 4.—April, 1899. A boy aged seven years was brought as a mouth-breather for treatment. He had been stunned by a blow with a stick on the forehead when four years old. From that time, it was said, nasal breathing gradually became more difficult, and finally ceased.

Examination.—Curvature of cartilaginous septum to left, with ridge at base. Columnar cartilage curved to right; also adenoids in naso-pharynx. Chloroform was administered. Ridge was first excised with knife. Then two longitudinal incisions from behind forward were made through the cartilage on the curved side, the finger in right nostril acting as guide to protect the mucous membrane from perforation. A rubber splint two-eighth inch thick was at once inserted, pressing the cartilage into central position. While still under chloroform, a slip from the columnar cartilage on the right side was excised, and the adenoids removed.

Two weeks later the rubber tampon was taken out, the result being nasal breathing, and good left nasal passage.

CASE 5.—April, 1899. Youth aged seventeen years. Nose externally twisted to right side. Says he was struck by a ball on the nose two years ago, since which time there has been increasing deformity and considerable nasal stenosis.

Examination.—Extensive ridge spur on left side, with curve filling up the fossa, part of the cartilage being adherent to the middle turbinated. Under cocaine, excised front part of ridge. After compressing septum to right with chisel, inserted one-eighth inch rubber tampon. Four days later under chloroform, made two incisions from behind forwards through septal cartilage, guiding, as in Case 4, by finger in right nasal fossa, and thus preventing perforation of mucous membrane. Then pressed out septal cartilage by passing two-eighth-inch rubber splint. The septum being straightened, the tampon was left in for two weeks. The front part of the fossa being now freely open, a bony ridge extending along the lower part of the vomer was removed by saws, and a long, wide tampon one-eighth inch in thickness, but extending from the anterior to the posterior naris, was placed in position. After the first day it created no discomfort. As patient was returning home, he was instructed to retain it in position for a month.

I may say with regard to the last two cases that the cosmetic improvement will be marked.

My own experience in the use of rubber splints has, so far, been very satisfactory, and I earnestly recommend a trial of them to gentlemen, who, up to the present, have not adopted Mr. Lake's advice in this matter.

In closing, I might make one more remark. I have seen somewhere that it has been proposed to manufacture a species of perforated rubber, the perforations being small, and not to be confounded with the tubular rubber splint somewhat in use, in order to allow a certain amount of respiration and ventilation through it while in position. This, I think, would be a great mistake, as it would destroy all possibility of keeping the splints in an aseptic condition. Another thing—the perforations would be so quickly filled with nasal secretions of one sort or other, that the object for which the perforations were made would be nullified.

37 Carlton Street.

SURGICAL INTERVENTION IN CASES OF SPASTIC PARALYSIS.*

BY B. E. McKENZIE, B.A., M.D., TORONTO.

It has been a matter of surprise to the writer to learn how many of the cases that come to the orthopedic surgeon for treatment are disabled as a consequence of some affection of the central nervous system. Of these, none are commonly regarded as more hopeless than the cases of spastic paralysis. Even of this special affection many varieties present themselves. No one element, however, which enters into these cases has so much influence in determining the prognosis as to the result of orthopedic treatment as the condition of the intellect in the individual case. In my observation more than 60 per cent. of all cases seen were deficient mentally. The importance and frequency of these cases have not been duly recognized until within the last few years; but it is now well understood that in the early years of life cerebral palsies are nearly as common as the spinal variety. From the etiological standpoint they have been divided into three groups:

1. Those due to prenatal conditions.
2. Those following birth accidents.
3. Those depending upon disease or trauma after birth.

The upper motor neuron is well formed only at the ninth month of intra-uterine life, and is not completely developed until the second or third month after birth. Much defect in this part is always marked by spasticity and impaired motility in the muscles supplied by the lower and terminal motor neuron. The pyramidal tracts in the cord are a direct continuation of those tracts in the brain, each being connected chiefly with the motor tract in the opposite half of the brain. Disease in these tracts implies paralysis; but as disease of these tracts in the cord is generally secondary, the paralysis is not so much the result of the lesion in the lateral columns as it is of the lesion higher up, which has given rise to degeneration in the columns of the cord. Paralysis, with disease of the lateral columns, is associated with two symptoms, which are due directly to the diseased fibres in the spinal cord. The first of these is the spastic contracture of the paralyzed parts. The second is the increase of the deep reflexes when there is a lesion in the lateral columns of the cord or in any higher part of the pyramidal tract. Rigidity, contracture and increase of deep reflexes are the constant accompaniment of these cerebral palsies of childhood. Convulsions are much more common than

* Read at the meeting of the American Orthopedic Association, in New York, June, 1899.

in cerebral palsies of the adult; the lesion is generally cortical while in the adult it is more commonly intra-cerebral; hence they are more commonly followed by epilepsy than in the adult. This proves a serious complication, as it generally brings about further degeneration and increased mental defect. If the character of the palsy is such that the lesion in the child can be proved to be capsular rather than cortical, the prognosis as regards epilepsy may be considered favorable.

Monoplegia is exceedingly rare. The form most commonly found is diplegia, affecting chiefly the lower extremities. These cases of diplegia are due nearly always to prenatal lesions or to traumatism during labor. The most common cause of the trouble is found in meningeal hemorrhage which occurs during protracted labor, and hence more frequent in primiparæ. As the hemorrhage in such cases is generally at the vertex, both hemispheres of the brain are involved, and as the centres controlling the lower extremities are situated in the upper part of the Rolandic area, and as the pyramidal tracts become involved the resulting injury produces spastic paraplegia in these cases. When the effects of the hemorrhage are confined to the surface of the brain, rigidity largely predominates over paralysis. The depth of cerebral injury in cases of traumatic origin is the chief factor in determining the form of hemiplegia or diplegia. The deeper the destruction the more profound is the paralysis. Palsies always follow the involvement of the motor cortex or its pyramidal tracts, but if the frontal lobes are affected idiocy is a consequence and is a frequent accompaniment of motor disturbance. In about one-fourth of these cerebral birth hemorrhages the spinal cord is similarly affected. The great majority of natal and prenatal cases present a bilateral palsy. After birth the tendency is to one-sided paralysis, and after the age of three it is almost the invariable form.

Though the etiology, pathology and symptoms of the early stages of this affection are matters of deep interest, yet these cases almost invariably present themselves to the orthopedic surgeon at a time when he can exert no influence upon them except through operative interference, or by methods of training and development.

Very commonly the early months of infancy have passed without anything unusual having been noticed in the history of the child's development. Even in cases where there seems to have been a backwardness observed, both the parents and the professional attendant are inclined to ascribe the condition to weakness, and to suppose that as soon as the general condition of the child shall be brought up to par, it will show a normal ability mentally and in the matter of locomotion.

Several months pass, in some instances, before a condition of

rigidity of the muscles is observed; in other cases this condition is noticed at birth. Smallness of the head, deficiency of the frontal portion, inability to sit alone after six or nine months, lack of the usual infantile efforts to talk are some of the most easily observed early signs of this affection.

From the first the nutrition of the paralytic muscles and the tendency to contractures must be met by massage, passive movements, faradism and so forth. As soon as contractures appear mechanical appliances may be used to some advantage if the intellectual development of the patient is such as to enable him to put forth a personal effort.

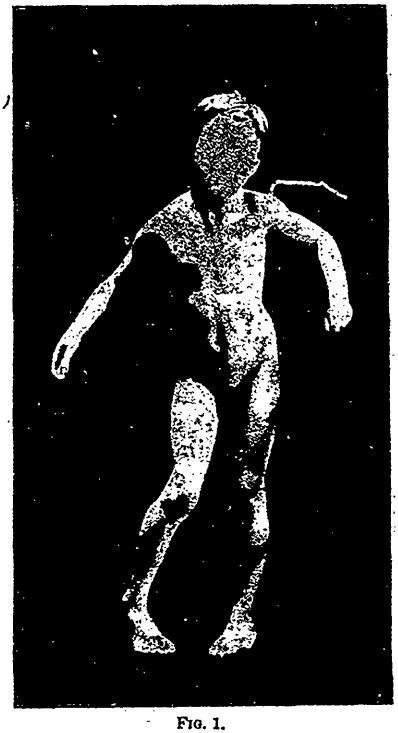

FIG. 1.

A. B., 8 years; Spastic Diplegia. One of my earliest cases, not operated on. Great improvement would have resulted from operation. Mentally, fairly bright.

Until the time has arrived when the child can sit erect and show some disposition to balance the trunk upon the lower extremities, little or nothing can be done through surgical treatment. In very many cases, however, the general development and strength of the child is sufficient to enable a decided effort to be made in furtherance of locomotion, but the spastic condition of muscles, especially of the adductors, the hamstrings and those controlling the feet, places an insuperable impediment in the way of successful walking. Of the cases which the writer has seen the age has varied from infancy up to twenty-eight years. When the patient has acquired sufficient age and development to have strength enough to walk, but is prevented from so doing by the contractures and the obstruction caused by deformity resulting from contracture of the affected muscles, free tenotomies and myotomies have been made so as to place the deformed part in a correct position and to relieve restricted movement as much as possible. The muscles which demand attention most frequently, and which have been most thoroughly incised are the adductors. It has been my practice after cut-

ting these at their origin at the pelvis to abduct the limbs at once to such a position as to place them at an angle of from sixty to ninety degrees with each other, and then to retain them in this position for several weeks. While there never has been a resulting defect in muscular power which has been harmful to the patient; yet there has been in no case a return to a condition of spasm. I can commend this practice most unreservedly. Free cutting of the hamstrings may be done with a similar result; in like manner any number of tenotomies and fasciotomies in the feet may be performed to rectify any deformity which may be found present.

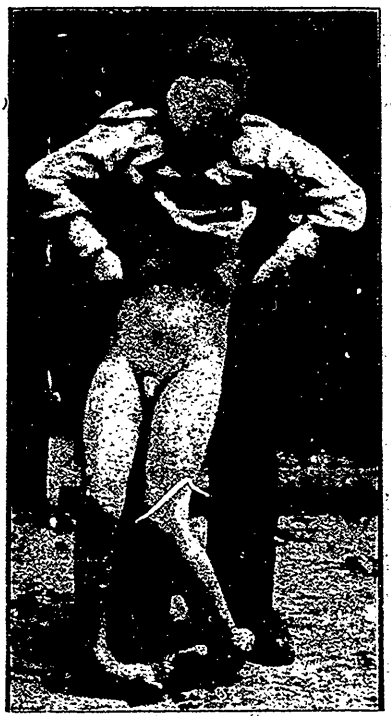

FIG. 2.

W. B., 9 years. A moderate imbecile, never walked. Cut adductors, hamstrings and foot tendons, overcoming deformity. Fair degree of improvement.

Not only is the contracture removed, but also there is a great lessening of reflex action which is of exceeding benefit thereafter. This is a result which I am unable to explain; but of the existence of the fact there can be no doubt.

CASE 1. M. M., twenty-seven years of age, female, bright mentally, but never able to walk. The case was a natal or prenatal diplegia, involving the lower extremities and her right arm. The exaggerated and uncontrollable spasm which would occur in this case when any voluntary effort was made was a source of much annoyance. After making numerous tenotomies in this case, the feet and limbs have been brought to a comparatively normal position, so that she has, with the aid of appliances, acquired the power to walk when she takes her brother's arm. This, however, is not the improvement which she prizes most. She experiences the greatest comfort from the lessened reflex action in all three extremities.

By intervention of this kind cases that would otherwise never have any prospect of walking, may be so much helped as to walk very well without the aid of any appliance.

CASE 2. I. W., four years, a fairly well-nourished child, bright intellectually, has never learned to walk, has very strong contraction of the adductors; extension at the knee to an angle of one hundred and forty-five degrees and marked valgus of both feet. Adductors were freely cut at their origin at the pelvis and the legs kept separated so as to form an angle of ninety degrees with each other for a period of three weeks. The hamstring tendons were cut, and the legs extended nearly to a straight position. The feet were forced into a position of varus and the limbs and feet thus retained for three weeks.

FIG. 3.

W. H., 28 years. Mentally bright. Spastic Paraplegia. Very strong adductor spasm. Myotomies and tenotomies of adductors, hamstrings and foot muscles. Marked improvement.

After removal of the fixed dressings, appliances were employed extending from a pelvic band to the boots, jointed at the ankles and knees, the latter joints being capable of self-locking. An apprenticeship in walking was spent during the few months while these appliances were worn. The child was able to walk from one room to another in three months, and now, eighteen months after operation, the limbs are straight. No appliances are worn in the daytime, and the child walks well. At night simple braces are worn, which keep the knees fully extended and the feet at right angles. Flat-foot boots are worn.

Our experience in this and other cases goes to show that very often appliances need not be worn during the day.

Massage after operation should be continued for months or years, and has a marked influence for good in improving the tone and suppleness of the muscles.

Training in the regular class in Corrective Gymnastics is a powerful means of helping these patients. In any affection requiring the Corrective Gymnastic treatment the results obtained will depend largely upon the personal intelligent effort put forth by the patient. So, in these cases it is only

those who have at least a moderate amount of intelligence who get much help.

The same is true, but to a less extent, in the wearing of appliances. Idiots and imbeciles of the lower grade will not make the personal effort which is essential to success.

In reference to the work of training, it is worthy of remark, that it is one of the most important agencies employed by those who devote their attention to the intellectual development of nervous and backward children. Similarly it may be pointed out that surgical operations, which improve the physical condition of these unfortunates, which inspire confidence and hope, which take them out of doors, which make them independent of others in moving about, which bring them into contact with nature, become a powerful agency in lifting them to the status of intelligent citizenship.

CRIMINALS AND THEIR CHARACTERISTICS.*

BY J. H. McCASSY, M.D., DAYTON, OHIO.

At the closing of the nineteenth century, with its marvellous achievements, progress in culture and refinement, unprecedented naval victories, and the acquisition of new islands and new peoples, the United States finds itself confronted with an alarming increase of crime. During the past ten years the population of the United States has increased twenty-five per cent., but during the same time crime has increased sixty per cent.

In order to stay the rising tide of crime the assistance of the physician should be invoked to diagnose the disease and proclaim to the world that crime is the natural outcome and logical consequence of neglected education, heredity and disease, and that the "penalty" should be correction and medical treatment. The question of crime is no longer a purely legal one, but a medico-legal question. The country can flourish under Democratic or Republican rule, but not with crime so much on the increase.

The criminal should be turned over to the doctor for treatment instead of to the politician. The wardens of the penitentiaries and executive officers of reformatories should be physicians.

It is cruel to torture the born criminal for his misdeeds. It would be just as humane to torture the epileptic because he has fits, or torture any individual because he is afflicted with the

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* Oration delivered at the meeting of the American Medical Association, Columbus, Ohio.

rheumatism. It is difficult to restore a man who is diseased, twisted and warped, yet every criminal has a divine spark. Repeated arrests and trials for criminals are poor economy. The second or third should be the last. The man who steals $10 is just as guilty of theft as he who steals $5,000, because the first would have taken $10,000 if it had been there. The law as administered at present is intended for normal beings, and not the criminal who is an abnormal being. Careful and scientific treatment must be substituted for brutality and chains. Laws should be directed toward the criminal and not to the crime.

Man is subject to psychical and physical laws. No human act is without a cause immediate or remote. Human laws are of no validity unless they are in harmony with the laws of nature. The law of gravitation was discovered, not created. The same may be said of the laws of heredity and atavism.

The physical and moral characteristics of criminals are not so valuable in convicting them of crime as in classification and treatment. A person may have insane ancestry and be inevitably doomed to insanity, yet his liberty cannot be abridged without some warrant from his actions or words. Also, a person may have many of the essential characteristics of a criminal and through favorable environment he may pass through life as an upright citizen.

The crimes of women are generally due to emotional causes, as love, jealousy, hate, revenge, vanity, etc., because woman's emotional nature has been more highly developed.

Even children readily form likes and dislikes for persons they meet. They have an intuitive knowledge of strangers. In the child, up to a certain age, are manifested the saddest tendencies of the criminal. Even infants, at the age of two to twelve months, manifest anger and rage and will strike at nurses and break dishes (Lombroso). Stanley Hall says all children are liars. The Psalmist said in his haste that all men are liars, and were he living to-day he could say this with deliberation. National education should be empowered to classify children according to their morals, as well as their intellects. One corrupt pupil may infect the whole school. Those feeble in morals and intellect should have extra guidance and instruction. The idea of goodness should be held up rather than that of badness. The way to destroy evil is not to hold up and analyze it in order to make it hateful, but rather to let it pass out of consciousness. A child being asked if he wanted to go to heaven, replied that he did not care to; when asked the reason, he said that he didn't want to be alone up there with God and George Washington.

A large number of people lack individual initiative and try

to live in idleness. This leads to thieving. Alcoholism forms a great part of the vicious circle. Inebriety in itself is a symptom of more or less unsoundness of mind. When crime is committed by inebriates the probability of mental disease is very strong (Lombroso). The present writer (December 3rd, 1898, p. 1344, *Journal A. M. Assn.*) gives the following: Eighty per cent. of drunkenness is due to heredity. Alcohol causes thirty-three per cent. of the diseases, seventy-five per cent. of the crimes and fifty per cent. of the poverty that afflict our race; twenty to twenty-five per cent. of criminals are born criminals, the balance being due to neglected education. Only ten per cent. of criminal offences are detected and punished.

We have born sailors, born fighters, born musicians and born physicians, born criminal lawyers, born poets—born criminals. The born criminals have invariably physical signs of degeneracy. They are akin to the victims of moral insanity. The high-class born criminals possess considerable intellectual ability. They are usually free from small vices. They assert that they cannot afford to drink, as it would in time impair their expertness and dexterity. They may be religious. They are vain, superstitious and sentimental. They lack curiosity, the fundamental element in progressive education.

Criminality, insanity and genius are on the same plane. In criminality, selfishness is the ruling principle, coupled with the power of discernment and choice. There is a delusional origin of first principle. Fraternal love in the humanitarian sense is absent; still, there is *honor among thieves—i.e., among themselves.* Moral paresis is often caused by cranial injury, fever, meningitis, dissipation, inherited fault, etc., and these may result in inebriety, hysteria, fanaticism, perverted temper, prostitution, etc.

Insanity is a delusional state of mind fixed against reason. No man is perpetually free from errors of fact or opinion, and there are few who will resist demonstration or conviction. The grand steps of civilization, often the product of genius, were conceptions which were regarded at their birth as "off" or insane, but in time they proved to be the pillars of progressive civilization.

The Church and the State have too long regarded the knowing of right from wrong as the supreme test of sanity. Judge Jeffrey voiced the true solution when he said that the best test for insanity is: "Can the victim refrain or not refrain from the commission of homicidal, suicidal, or other insane acts?"

It is difficult to tell the precise point at which criminality leaves off and insanity begins. In the commission of homicide, suicide, arson, etc., criminality often fades into insanity. Criminality may be the first manifestation of insanity. The

criminal, like the insane, is frequently unable to refrain from criminal acts. In these cases the remedy is the intermediate sentence or permanent restraint.

With the insane criminal, in the act itself lies the satisfaction, not in the object of it; while in criminals, the act is only a means to an end. To the insane criminal crime is a pleasure; to the true criminal it is a paying business, necessitating, it may be, disagreeable acts (Garofolo). The born or instinctive criminal looks upon the penalties of crime as the natural risk incident to the business without regard to the moral aspects of it. He dislikes to be deprived of the exercise of his craft.

For many years physicians have been paying a great deal of attention to microbes, and have thoroughly established the germ theory of disease. Sanitary science and quarantine are powerful agents in the limitation and cure of disease. The same agents are just as powerful in the limitation and cure of crime. The criminal is a microbe gnawing at the social organization. There are only forty thousand of them in the penitentiaries of the United States. They must all be quarantined in order to protect society from further infection.

There are always in every community certain persons who are on the borderland of criminality or insanity, and at present it seems to be nobody's business to detect and apprehend them. The coroner of each county (with assistants in large cities) should be possessed of special qualifications for this work, and be armed with power to abridge the liberty of both children and adults who are unfit to be at large. It is a delicate matter for one neighbor to institute proceedings against another, and too often the community suffers through delay and neglect. Had Guiteau and Prendergast (both paranoiacs) been apprehended sooner, President Garfield and Mayor Harrison might be living to-day. Their conduct before the commission of murder was such as to warrant the curtailment of their liberty.

The writer made autopsies on several criminals (fifty), and particularly insane criminals, and in nearly all cases found meningitis and more or less atrophy of the brain. Time will not permit me to relate more than a few examples:

A colored patient, who was committed to the penitentiary for murder, refused to eat, and he was transferred to the insane asylum at Topeka, Kan., where he died six months later. An autopsy revealed meningitis and complete exclusion of the superior longitudinal sinus with inflammatory products. A patient, whose case was in the courts of Atchison, Kan., for two years for the alleged crime of rape, finally was acquitted of the crime, but was adjudged insane and sent to the asylum. When he died, an autopsy revealed meningitis and atrophy of the upper part of both hemispheres of the brain. From an exami-

nation of a large number of cases and autopsies on a considerable number, the writer is convinced that a large number of patients are erroneously sent to the State prison instead of to the hospital for the insane.

In conclusion, a fixed normal standard for comparison is a great necessity, and it will soon be established. Physical signs and moral characteristics will be more and more available, not only in the treatment and cure of criminals, but also in classification, diagnosis, prognosis and prevention of criminal tendencies.

The physician being armed with the chemical laboratory, the X-rays and other modern means of scientific investigation, will naturally become the mentor of the people, and as he now protects our shores and municipalities from pestilence and infectious diseases, he will also protect society from crime.

Dr. J. Clarence Webster, lecturer in gynecology in McGill University, Montreal, has been appointed Professor of Obstetrics and Gynecology in the University of Chicago. The *Montreal Medical Journal*, in referring to the departure of Dr. Webster from Montreal, says: "While it is gratifying to know that his ability has led to his appointment, . . . his genial presence and his scholarly attainments have, in a few years, attached him very closely to the profession in this city and his fellow-teachers at McGill." We quite agree with our contemporary in its estimate of Dr. Webster's varied good qualities. We feel that the profession of Canada will sustain a serious loss through his removal to Chicago.

Society Reports.

ONTARIO MEDICAL ASSOCIATION.*

The nineteenth annual meeting of the Ontario Medical Association was held in the Normal School building, Toronto, June 13th and 14th, Dr. W. J. Gibson, Belleville, presiding.

The following gentlemen were introduced to the Association: Dr. Wilding, delegate from the New York State Medical Society; Dr. Christian Fenger, Chicago; Dr. Bowditch, Boston; Dr. J. C. Wilson, Philadelphia, and Dr. D. W. Montgomery, San Francisco.

Dr. J. F. W. Ross presented the report of the Committee on Papers and Business, which was approved.

In the absence of Dr. J. A. Temple, Dr. William Oldright presented the report of the Committee on Arrangements. Approved.

A Case of Muscular Dystrophy.

Dr. Ingersoll Olmsted, Hamilton.

The subject of this case was a young married man, twenty-five years of age, who had come to the doctor complaining of wasting of muscles and inability to work. His family history showed that other members thereof had been afflicted with the same trouble. The patient was presented to and examined by the members of the Association, the peculiarity of his gait and movements noted, especially interesting being his manner of assuming the erect posture from a prone position. Wasting was most marked in the region of the scapulæ, deltoids, biceps, forearm and thigh muscles, whilst those of the calves and hands were moderately well developed. Winging of the scapulæ was especially well marked.

Dr. Geikie thinks that, as we come to know more and more of this disease, destructive changes will be found existing in the nerve centres.

Dr. Olmsted, in reply: With regard to what Dr. Geikie has said, he thought there was no question that extensive atrophy takes place without any involvement of the central nervous system.

Relapse in Typhoid Fever.

Dr. J. C. Wilson, Philadelphia, read a very interesting and able paper on this subject. He exhibited a number of temperature charts, and said that especial attention should be paid to

*We are indebted to Dr. Elliott for the report of this meeting.

the condition of the gall-bladder as a causative factor in producing these relapses. He took this as his "working hypothesis," and proceeded to demonstrate the concomitaneous occurrence of a relapse with the renewed physical movements of the patient, the beginning of the administration of the more solid forms of food, the consequent peristalsis thus produced in the gall-bladder and the subsequent discharge of the accumulated contents of this cyst, containing large quantities of the bacillus typhosis, into the intestine, thus producing the reinfection and the relapse. This, he thought, must be due to intrinsic and not to extrinsic infection. Dr. Wilson spoke for some length on immunity and concluded in this way: Thus we have a "working hypothesis" to explain relapse, which may be set forth in these terms: Intrinsic reinfection from the gall-bladder at a time when the intestines are stimulated by larger meals of a different character, an immunity not yet complete, and reinfection at once without a period of incubation. He perfectly understands that the change in the blood serum which underlies the Widal test is not a process of immunity, but a process due to the infection. He closed his admirable paper as follows: That the histological changes taking place in the solids and fluids of the body, bringing about immunity, are also gradual; and if the "working hypothesis" stands at all, it demands that complete immunity shall be established in the primary attack, otherwise intrinsic reinfection which gives rise to the relapse, could not possibly occur.

Dr. J. L. Davison quoted Faggé, who refers to cases in Guy's Hospital that had died from the sequelæ of typhoid, weeks and weeks after convalescence had been established; and on *post-mortem* examination Peyer's patches were found still infected or still in a condition which showed evidences of the bacillus. In many cases the disease smoulders along for weeks, and while Dr. Wilson's hypothesis of the gall-bladder is a reasonable one, it hardly explains why we should have cases of relapse after thirty days and later, and therefore Dr. Davison thinks there must be other storehouses for the retention of the specific germs than that. The question of the number of relapses is a very interesting one. While Dr. Wilson stated he had seen as many as seven in a six months' illness, the largest number he had seen in any one case was three. He instanced a case of recovery after perforation. The question of immunity was an interesting one in typhoid fever. From recent researches, it appears that there are two immunity substances—one which produces an antitoxin and destroys the action of the toxin in the body, and thus serves to keep the patient alive; and the other, which is bactericidal in its action. It appears that we must have both of these in order that a patient may recover

from the disease. It is this bactericidal element which has a large part to play in the destruction of the germ itself.

Dr. Thistle asked, Why go to the gall-bladder when the bacilli are in the intestinal contents?

Dr. Wilson, in reply, stated: The infection comes from the gall-bladder, because the toxin is accumulated in a great mass in a hollow viscus, which, under physiological conditions of low diet, may remain there; but when you begin to feed the patient at longer intervals with solid foods, the gall-bladder is suddenly stimulated to empty itself. Dr. Wilson did not exclude the intestine if the gall bladder is quiescent. Under the condition of feeding small amounts of fluid alone, the gall-bladder is not stimulated push out its contents.

TUESDAY, 2.30 P.M.

The Hon. G. W. Ross delivered an address of welcome to the Association. He expressed his pleasure at meeting the medical gentlemen of Ontario. "We look on the medical men of the Province as belonging to a class of progressive educationists, which are of assistance to the Department in maintaining the proper scientific spirit in the country." He spoke on the subject of tuberculosis, and said, if the Medical Association of this province can throw out some hints whereby that disease can be banished, they will have conferred a great boon upon the people of this country. There is no profession to which the Province owes more than it does to the medical profession. In this instance he referred to the extent in which that profession had guarded all of us from contagious diseases, had improved sanitary conditions everywhere, and made hospitals habitable. Speaking of the standards of education, he was in favor of keeping these up, and emphasized having a good general English education before entering upon professional studies; and, after four or five years of professional study, no one could say that the medical profession is not an educated body. The doctor is one of the most influential members of the community. Health in the Public schools next engaged his attention, and he exhorted the profession all over the Province to interest themselves in this most important object. Physical training and exercise should go hand in hand with mental development. He referred to the unhygienic condition of Public schools in regard to fresh-air space per pupil, lighting, heating, etc. Improvements all along this line would tend to develop a good, strong, sturdy Canadian stock. Home lessons should not be imposed upon the children so far as the Department of Education is concerned. Examinations at too early an age were injurious and harmful. The country must produce men, strong in mind and body, men with nerves that will endure the strain of public life.

PRESIDENT'S ADDRESS.

Dr. W. J. Gibson, Belleville, expressed his thanks for the honor conferred on him, having been made President of the Association. In regard to serum therapy, it was a matter of congratulation to the profession to know that so many able workers are in the field. He instanced tuberculosis, and stated that the whole world was on the alert to discover a cure for this disease. More attention should be given to personal hygiene and cleanliness. It would be difficult to estimate what good purpose it would be to report all the cases of tuberculosis to the health officers. It would be a difficult matter, however, to make isolation in all cases compulsory. He spoke of the number of diseases now treated with antitoxins. No doubt investigators were on the threshold of important discoveries. Every member of the profession should investigate the causes of disease more carefully. Dominion registration under Dr. Roddick bids fair to become an accomplished fact. It is to be hoped some feasible plan may be adopted whereby the student may be spared the examinations and the expense of being licensed in another province. In regard to over-pressure in Public schools, he was glad to know that the Toronto School Board had done away with final examinations. The combining of mental and manual work, or technical schools, is desirable. He spoke of the improvement in medical teaching in regard to there being more clinical instruction than didactic lectures, and the importance of laboratory work was emphasized. The public is indebted to the medical profession for the lives saved, suffering reduced, and the calamities averted in civilized countries. Physicians stand in the front rank of the benefactors of mankind.

Dr. Bruce Smith moved, seconded by Dr. Harrison, that the President be tendered a hearty vote of thanks for his admirable address. Carried.

SYMPOSIUM ON TUBERCULOSIS.

Sanitarium Treatment of Pulmonary Tuberculosis.

Dr. Vincent V. Bowditch, Sharon Sanitarium, Boston, said it was gratifying to notice the marked change of opinion in regard to the treatment of tuberculosis in institutions devoted to that work. Massachusetts had been the first state in America to establish sanitaria. He gave a short history of the Rutland and Sharon sanitaria. It was important to keep this class of hospitals for the incipient disease. He spoke of the educational influence of the hygienic methods employed in

these sanitaria. Open windows, even in cold weather, was to be insisted on as a special treatment of the disease. Patients have returned to these sanitaria begging to be taken back because they could not breathe in their own houses. He thought much more could be done for the patients by having them treated nearer home. Much more can be accomplished by treating consumptives in these sanitaria than by treating them in their own homes. Thirty per cent. have been discharged at Sharon as arrested cases. Dr. Bowditch has never used the term "cure," believing that the term is unjustifiable until after a lapse of years and no symptoms returned.

The causes of death in these cases: (*a*) Advanced condition of disease on entrance; (*b*) intercurrence of some other disease; (*c*) too early departure from the sanitarium and return home to the unhygienic conditions.

As to treatment, experiments were made with the so-called specifics. Oil of peppermint proved at times beneficial. Creosote was found to be beneficial as an aid to digestion. Antiphthisin proved negative. Had refrained from the use of the serum treatment. Abundance of fresh air, judicious exercise, pulmonary gymastics and calisthenics form the base of all the treatment. Results at Sharon mean that sanitaria should be near all the large cities and towns. He congratulated the profession in Ontario upon the establishment of the sanitarium at Gravenhurst, and spoke also of the necessity of having hospitals for the hopelessly sick. We take away the principal source of infection when we remove these from their homes.

Pathology of Tuberculosis.

Dr. W. T. Connell, Kingston, who was to read this paper, was unavoidably absent.

Earliest Diagnosis and Selection of Cases for Sanitarium Treatment.

Dr. N. A. Powell stated that for ten years he had practised in a part of the Province where phthisis is practically unknown. The diagnosis of early phthisis calls for what we understand by incipient or early phthisis—the pre-tuberculous stage. In this regard our views have changed materially within recent years. Up to the time of the demonstration of the bacillus, a case was considered early unless there were large growths within the lung, and until gross constitutional symptoms had shown. There is an inherent tendency towards recovery in phthisis when recognized early. This leads to the question, how often is phthisis recognized in an early stage, in a stage before physical signs are manifest in the chest and before expectoration has commenced. A very slight proportion of

such cases are recognized. Why? The teaching of the students in diagnosis is exceedingly efficient. Why are mistakes made outside, and disease of the lungs not recognized until serious inroad has been made into the health of the patient? A part of it comes from the earnest belief that the physician's education has been complete though crowded. Medical students crowd the course in surgery and gynecology, but neglect physical diagnosis. He believes early diagnosis will depend upon close study and family and personal history. There are certain aids to the examination, such as the use of the fluoroscope and the tuberculin test. In regard to the state of the family history and the personal makeup of the patient, in the careful examination it is important to estimate weight and height together before you can arrive at anything of importance. The symptoms of early phthisis are uncertain. None of them upon which you can rely. A man who is in apparently excellent health may have serious pulmonary disease. It is sometimes important to notice any scars in the neck. As to cough and early hemorrhage, distinct hemorrhage which comes with comparative earliness are two symptoms of importance. The patient should be made to cough in the presence of the physician, and any sputum thus gained should be examined. In regard to physical diagnosis, if you wish to estimate the value of a stethoscope, take a watch and place it on the table, then, with the back of the hand on the watch, place the bell of the stethoscope in the palm of the hand and listen to the tick of the watch in this way. In examining a patient, the stethoscope should always be used whose accuracy is above suspicion. The evening temperature running up $\frac{2}{5}$, $\frac{3}{5}$ or 1 degree, associated with morning pallor, is one of the most important elements in early diagnosis. Dr. Powell spoke of the physical examination, and said the patient should always be stripped to the skin and examined in a quiet room. If you can get association of relative dulness in the spinous fossæ with the slightest accentuation and conveyance of the whispered voice or any prolonged expiration, it is safer to treat such a patient as being probably tubercular. In a case presenting progressive loss of weight and loss of physical energy, if one can get a little wavy or cog-wheeled respiration near the lung, it is safest to treat such a patient as being probably tubercular. Personally, without having much basis to go on, he said that he was afraid to use tuberculin as a test for fear of lighting up tuberculosis. In a case of prolonged expiration and evening fever, he was very unwilling to try the tuberculin test. As to the fluoroscope, Dr. Williams, of Boston, has done perhaps the best work upon this subject. With this instrument, it is perfectly easy to recognize excursions upwards and downwards.

of the diaphragm during respiration, the average excursion in the adult male being about two and one-half inches. If it is notably lessened on one side, it would raise strong suspicion of the presence of tubercle. Dr. J. E. Graham took the position some years ago that there might be considerable advance in the condition without being recognized by even a trained observer. The apparatus of Roentgen is of positive value when a trained observer recognizes the movements of the diaphragm, and a man of expertness may recognize degrees of shading which will be of benefit in diagnosis.

Home Treatment and Prevention of Tuberculosis.

Dr. T. F. MacMahon read this paper, and first spoke of how we should treat the patient in his own home, and what means we shall take to cure the disease and stay its ravages. Without a specific germ there could be no tuberculosis. The main source of infection is the sputum and then infected food. Prompt destruction of the sputum would go far towards the removal of the disease. The public generally and the patients generally must be educated to this fact. Instruct your patients never to spit on the floor or into a handkerchief. Sputum should be received into proper spit cups. That the danger from handkerchiefs is a real one is borne out by the facts that washerwomen in health resorts have contracted the disease through washing these handkerchiefs. Very fine drops of saliva may be a source of infection. Intimate association with coughing consumptives is dangerous to nurses in the rooms. Another important instruction is that rooms should be dusted with damp cloths using a disinfectant solution. Government and health boards must take the question up in earnest. Without education of the public, all our efforts will be in vain. Of course newspaper propaganda should be carried on. Premises occupied by consumptives and vacated, should be made fit for occupation by the Health Board. Bacteriological examination is quite as important. Association of consumptives with other patients in public hospitals is injurious and scandalous. Consumptives should not be treated in the ordinary hospitals. There should be systematic inspection of dairies and food supplies. There is also danger of infection from domestic pets, cats, dogs, birds, etc. The germ of tuberculosis is always with us. Patients should have as much open-air exercise as it is possible to acquire. Individuals especially predisposed should receive special attention. If the family physician would make it his duty to watch out for badly-formed chests, he could do much. Prompt attention should be paid to anemic and dyspeptic young women. Every precaution should be taken against cold-catching. The patient should not choose a seden-

tary occupation. Much outdoor life is especially desirable. Cure is altogether a question of instruction. There should be no cough mixtures. The nearer we approach the methods of the sanitaria, the better our results will be. The only method is the open-air treatment. The patient should occupy the room, when in the house, with the most sunshine. Nothing should be allowed to interfere with the fresh-air treatment. Rest in the open-air will improve the digestion. Excellent results have been obtained from this treatment in the sanitaria. Cod liver oil, where it agrees, is undoubtedly useful. The best results follow the administration of creosote—not too large doses.

Care and Prevention.

Dr. Charles Sheard spoke of the open-air treatment as the ideal treatment from the tubercular standpoint. In every case where we find the bacillus present, we have a case of tuberculosis to deal with. This is not the only disease which fresh air benefits. Many cases of bronchitis and bronchiectasis are also benefited thereby. The sanitarium is anxious to do cures in tuberculosis. There are a great many cases with cavities in the lungs, and we have to care for those cases as well. We have all seen these cases very recently put side by side in the same ward with a patient with chronic bronchitis, with another with pleurisy, and with another case with obscure chest trouble; yet there ought to be better places for the care of these cases. There ought to be separate buildings in connection with our hospitals for those cases which the sanitaria will not admit. The profession ought to stand united for the attainment of this object. He spoke of the benefit of the open-air treatment, and thought there should be glass houses and glass sheds so as to protect them from the changes in the weather. Much can be hoped for if patients are kept constantly in the open air. As regards the danger of getting tuberculosis from animals, Dr. Sheard quoted Clifford Albutt who fed his own family with the meat of tuberculous cattle, and yet none of them contracted the disease. The tuberculin test applied to cattle is a very crucial one. In one cow which responded to the tuberculin test, tuberculosis was limited to one gland alone. Generally we agree that tuberculous milk is dangerous according to the stage of the tuberculosis in the animal. How far are we prepared to go in enforcing laws *re* infection of this disease in animals and in man? He thinks the practitioners should report this to the Health Board. We must understand that we have got a vastly different disease to deal with than the acute infectious diseases which run their course in a few weeks. How much separation from the general public are we prepared

to enforce on a consumptive or whether we are right in doing even this. It is very questionable if we are prepared to enforce segregation in these cases and it is doubtful if the public is ready for this just now. In the meantime steps should be taken to notify hotels and lodging houses of cleansing rooms occupied by consumptives.

Dr. Beeman, Newburgh, spoke of the bacteriological work done in the laboratory, and thought that more should be done by the general practitioner. He thought he better secured the confidence of the patient by having this apparatus in his own office to give this gross diagnosis.

Dr. P. H. Bryce dealt with the establishment of sanitaria from the governmental standpoint and quoted statistics showing the widespread prevalence of tuberculosis in this province.

Dr. McConnell, New Mexico, told of three years' experience in the far south-west. He stated that more patients were now sent out there in whom as yet the bacillus has not been demonstrated, *i.e.*, in the pre-tuberculous stage.

Dr. John Hunter said that every physician should examine the chest of every one of his patients, no matter what disease he came to be treated for.

Dr. Wm. Oldright: Notification of the disease should be given in all cases. Disinfection after habitation by a consumptive should be carried out; also sleeping-cars after carrying a patient to a health resort. Thought we ought to have sanitaria near the city.

Dr. Playter spoke of the use of ozonised air in the treatment.

Dr. Coventry thought la grippe was responsible for laying the foundation of many of these cases.

Dr. Price-Brown: The lungs are only part of the respiratory apparatus. Every medical man should be able to use the laryngoscope and the rhinoscope. By treating the nose and throat, you can sometimes prevent the disease, and do not forget that you may have tuberculosis without cough or expectoration.

Resolution *re* Dr. J. E. Graham.

It was moved by Dr. N. A. Powell, and seconded by Dr. J. C. Mitchell, Enniskillen, That the Ontario Medical Association in session assembled desires to express its profound sympathy with its first Treasurer, and one of its most active members, Dr. J. E. Graham, in the illness with which he is now contending. The Association recognizes Dr. Graham's great success as a teacher, his accurate diagnostic skill and force as a writer as well as his distinguished position as a consultant, and desires to express the hope that his present improvement may continue to perfect restoration. Carried.

The annual banquet of the Association was held in the evening at McConkey's restaurant, Dr. W. J. Gibson presiding. A very enjoyable evening was spent by all present.

WEDNESDAY, JUNE 14.

SURGICAL SECTION.

Dr. Wishart, London, was elected chairman of this section.

Inguinal Hernia.

Dr. Wm. Oldright presented four patients in all of whom he had performed the radical cure very recently. He quoted the indications for and against operating in these cases as set forth by Dr. W. B. Coley in "Sajous' Annual." He thought Halsted's modification of the Bassini method was not an improvement.

Treatment of Hernia.

Dr. A. McKay, Ingersoll, estimated that something like 20 per cent. of the population is ruptured. He exhibited a new truss which he had contrived after a year's experimenting, and stated that in making trials of its efficiency, he had selected men who were lifting all sorts of heavy loads, and found that it would give the greatest satisfaction. The idea of the truss is to allow of the body motion, a constant wavering of the pad over the ring.

Dr. W. J. Gibson spoke of the difficulty of supplying patients with proper trusses. Dr. McKay's truss is devised to prevent the excoriation of the skin.

A Peculiar Gynecological Case.

Dr. Harrison, Selkirk, Ont. The subject of this case was a woman with a considerable family. Having become pregnant again—two and a half months—she was advised by a neighbor to produce an abortion, as it was a very easy thing to do, and no trouble arose other than an ordinary monthly sickness. A glass stylet penholder was passed blunt end foremost, which slipped from the woman's grasp, and was lost to her touch. On examination, the doctor could find no rent or tear of any kind either in the vaginal walls or in the walls of the uterus. Even after putting the woman under chloroform, the stylet could not be found. The woman was most positive that it was there, and that it had been passed blunt end foremost. An exploratory abdominal operation was performed, and the stylet was found in the region of the spleen with the point almost impinging upon the diaphragm where the heart lies on that muscle. The woman recovered with nothing worse than a stitch abscess.

Dr. Powell cited a similar case where a knuckle of intestine was found protruding through a rent in the anterior wall of the uterus. The woman died, however, in this case.

Dr. Roe, Georgetown, asked if the woman had aborted.

Dr. Harrison thought so.

Dr. J. F. W. Ross spoke regarding perforations that give rise to practically no symptoms. He instanced three cases seen recently in practice, in which with well-marked rupture of the uterus, there were no symptoms of collapse.

Dr. E. E. King thought it was probable that the stylet in Dr. Harrison's case had never gone into the uterus at all.

Dr. Harrison thought that the pen had passed through the fornix, but he could see no rent whatever in the vaginal wall.

The Seminal Vesicles in Health and Disease.

Dr. E. E. King described this condition as a pyo-salpinx masculinus. He exhibited a number of sections and specimens, and said that this was a storehouse as well as a secreting organ. He further described the normal condition and relations of the organs, and also their condition in enlarged prostate and in a previous gonorrhea. He stated he had examined during the last week, in the Asylum, ten cases of chronic masturbators, and in only one of these were the vesicles found exceedingly enlarged. The prostate was only found enlarged perceptibly in one case.

Dr. Primrose and Dr. Frank McConnell discussed the cases.

A Note on Kocher's Method of Radical Cure of Hernia—Femoral and Inguinal.

Dr. Primrose gave a very lucid blackboard description of this operation, and showed clearly how the inguinal pouches in the peritoneum were obliterated. As a guide in performing this operation, it was best to introduce a finger into the canal and cut upon the finger. Kocher recommends the silk suture in both operations.

Dr. Ferguson, London, Ont., discussed this paper.

Fibrinous Rhinitis.

Dr. D. J. Gibb Wishart stated that several cases of this had occurred last summer in his own practice. In the text-books published this year, Lennox Brown and Walsham both state that it is a disease distinct from diphtheria, and that these cases need not be isolated.

Dr. Price-Brown, Dr. L. L. Palmer and Dr. Ingersoll Olmsted discussed at some length Dr. Wishart's interesting paper.

Electrolysis and Cataphoresis in the Treatment of Inoperable and Recurrent Malignant Disease.

Dr. R. N. Fraser, Thamesville, Ont., read a highly interesting report of this case and its treatment. He said in this connection that he wished to report the history of a case in which apparently a favorable result had been secured after repeated failures. He was not aware that any case had heretofore been reported in Canada in which a similar plan of treatment had been adopted, and went on to give the detailed history of the case and its treatment. It was a case of malignant disease of the right testicle occurring in a married man of forty years with the history of a previous orchitis following ordinary mumps. After a prolonged bicycle ride the testicle had become very much enlarged and the pain almost constant though not severe. Aspiration had been performed sever l times and septic inflammation had followed. A section of the tumor had been sent to Dr. Caven, Toronto, who pronounced the case one of cystic sarcoma. The growth was removed. It was about the size of a walnut. Dr. Anderson, Toronto, said it was a carcino-sarcoma. Dr. Fraser then described at some length the electrical treatment followed.

On Some Points in the Diagnosis of Eye Affections.

Dr. R. A. Reeve read a very interesting paper with this title. He said this was important for the general practitioner as patients were continually consulting them with regard to defective sight or stenopia or for actual disease of the eye. It was necessary in the first place for the general practitioner to know whether there was any disease present. As to trauma, whether any existed, and to what extent was the eye-ball damaged; was it in the fundus or in the orbit itself. If a large magnet be brought close to the eye, pain is experienced, owing to the fact that the foreign body is attracted to the magnet and thus injures the tissues. Then in some cases you will have to determine whether there is rupture of the eye-ball itself posteriorly. He spoke of rupture by contre coup and also luxation. For foreign objects we should carefully scrutinize the anterior eye and the conjunctiva. He thought the time had come when the general practitioner should have a fair knowledge of the eye and be able to apply it. He should be able to fit the eyes with proper glasses when required. Patients who can read 20/20 will bring ordinary print close to the eye. Here we should suspect astigmatism. Then there is a clue to be got by testing the tension of the eye. This will give you a clue to the presence of glaucoma. Another point that should be attended to is the testing of the field of vision by closing one

eye with the hand or using a watch glass. Diseases of the cornea and conjunctiva are to a large extent now capable of division bacteriologically. Be on the *qui vive* for tobacco amblyopia in cases of cataract; and it is important to urge gentlemen over fifty to reduce the quantity of their tobacco.

Medical Section.

Dr. J. Russell, Hamilton, was elected chairman of this section.

Ophthalmology and the General Profession.

Dr. G. H. Burnham read this paper, the object of which was to bring forward some of the diseases of the eye and also some disturbances associated therewith, which required early recognition in order to be successfully treated. He instanced acute glaucoma, chronic glaucoma, tobacco poisoning causing dimness of sight. In regard to the subsequent changes produced by an attack of iritis, he did not for these perform an iridectomy, but instead of an operation gave his combined form of treatment, viz., mercury and the iodide of potassium internally, and pilocarpine hypodermically. He said his results were in this way much better than by an operation. In regard to diseases of the tear passages, he strongly recommended early treatment. He does not favor the employment of the largest probes and does not probe frequently, as good if not better results can be attained without the additional suffering which frequent probing is always associated with. He also spoke of eye-strain causing so many nervous disorders, as headache, neuralgia, constipation and St. Vitus' dance, and of the great importance of having the sight tested by an oculist and not by those so-called "doctors of refraction."

Dr. G. S. Ryerson thought that the paper fully met the requirements of the supject. Ophthalmia neonatorum was, however, omitted. A large percentage of eyes were lost from this cause. Medical men should take great care in cleansing the maternal parts before delivery and the eyes of infants later. Credé's methods greatly reduced the percentage of this disease. One or two drops of a one per cent. solution of nitrate of silver should be dropped into the eyes. This is not too strong. In regard to the question of refraction, doctors of refraction or doctors of ophthalmology was very misleading. He had tried to legislate against these when in the Legislature, and had approached the Government *re* these titles being used unlawfully. The giving of glasses by laymen to the public has been long done; but these titles are very misleading to the public. The question of refraction was a most difficult and complex one, and how can these men on a few months' training undertake such work and treat such cases?

Dr. R. A. Reeve said that in the preventive treatment of ophthalmia neonatorum, bacteriological examination of any natural discharge is of great help. He also upheld the application of nitrate of silver or perchloride of mercury to eyes after birth. Also recommended protargol, two to four per cent., as being painless and effective. The Provincial Board of Health should give instructions to doctors and maternities that Credé's or some method be used regularly. He referred to the question of refraction and the difficulty of dealing with it.

Dr. Burnham: Only some points can be referred to in a short paper. He agreed with Dr. Ryerson and Dr. Reeve in regard to refraction, and thought the general profession negligent in the majority of cases.

The Insanity Plea in Medical Jurisprudence.

Dr. J. Russell, Hamilton, read a carefully prepared paper on this subject. He thought the public were beginning to doubt that the law was being properly administered in these cases. The question was of interest to the general practitioner as well as to psychologist. It became every physician to acquire such a general and even special knowledge of the subject as to be able to acquit himself creditably in the witness-box without bringing personal discredit on himself or the profession.

Dr. T. F. MacMahon upheld Dr. Russell with regard to forming a competent commission to deal with insanity cases in law.

Notes of a Case of Torticollis.

Dr. D. C. Meyers, Toronto, presented a patient, a married woman, aged 39. The trouble came on at the age of twenty-five, just after the birth of her last child. At that time she was very sensitive as to people looking at her. About three years ago she first noticed that her head would turn voluntarily to the left shoulder, slight at first, in any position but the recumbent one. She is obliged to keep her hand to her chin to keep her head in position. The right sterno-mastoid is prominent and much hypertrophied. Her neurasthenic symptoms have gradually disappeared. The treatment consisted in separating the patient from her friends, Swedish movements gradually increased, galvanism and the internal administration of the iodide of potash and salicylate of soda.

Acute Diabetes.

Dr. A. F. McKenzie, Monkton, Ont., reported a very interesting case of this disease. It occurred in a young man of twenty-one years, a cheesemaker. He was passing about four times the normal quantity of urine daily, of a sp. gr. of 1032. Con-

tinued slow pulse and subnormal temperature were noted. The termination of the disease was fatal through an intercurrent attack of influenza.

Treatment of Eczema.

Dr. Graham Chambers read a creditable paper on this subject. He thought the first step toward the successful management of a case of eczema was to make a thorough examination of the patient with the object of determining the etiology and the course of the disease. Bacteria, no doubt, take an important part in the etiology. There is one principle in the treatment of acute eczema; that is, to give rest to the skin as completely as possible. Repeated washings with water are contra-indicated. Dr. Chambers uses externally a mild antiseptic, sedative, astringent lotion, a combination of black wash and calamine lotion, and recommends it very highly. The internal treatment is equally important. Rest of mind and body are sedatives to the skin, and should be secured. Confinement to bed is sometimes of great aid. Wine of antimony is a valuable remedy in subduing the inflammation of the skin.

Dr. Coventry upheld the internal treatment with mercuric chloride 1-64th grain and calomel at times dry locally.

Dr. Chambers thought mercuric chloride did not agree in some cases. He gave calomel in larger doses, every four days or so, and salines if needed. Calomel locally in seborrheic cases, he thought, had no effect. About 50 per cent. of the cases of eczema are probably parasitic.

The Present Status of Ergot in Obstetric Practice.

Dr. K. McIlwraith, Toronto, read a paper with this title. Administration during pregnancy where there has been post-partum hemorrhage at previous labors. Given in small doses *t. i. d.* in combination with strychnine, it delays the onset of labor and prevents the post-partum hemorrhage. In the first stage it is never given now. In the second stage, to hasten lingering labor. Its advocates limit its usefulness to cases in which there is absolutely no impediment to delivery, even in the passages or in the size and position of the child. It must never be given in a primipara. These conditions exclude its use in most cases. It should not be used in post-partum hemorrhage in view of the trouble it causes with the secundines. Its routine administration throughout the puerperum retards involution instead of hastening it, and it diminishes milk secretion.

Dr. Roe, Georgetown: The use of ergot has changed very much in the last twenty years. He used to give it when the head was on the perineum and he never had any bad results.

Dr. Machell: Dr. McIlwraith has put the question very fairly. He has given both sides of the question. For the first stage ergot is never given now. In post-partum hemorrhage it is of very little use. For some years now he had given no ergot at all. He thought the pressure on the fundus the best.

Dr. G. Gordon: There is a tendency to go to extremes in this matter. If all was clear in the second stage and pains slow, he would not hesitate to give ergot.

Drs. Hunter, C. J. O. Hastings and Cruikshank further discussed the paper.

GENERAL SESSION—2 P.M.

A Case of Coccidial Infection.

Dr. D. W. Montgomery, Los Angeles, Cal., gave a clear description of this case. First, there were general symptoms of the lungs simulating tuberculosis. The process went on for some little time—a few weeks—and then he got a disease of the skin which was well shown in the photos the doctor exhibited. The disease of the skin consisted of large tubercles which at first appeared as little maculæ, then grew to be small tubercles, then large tubercles. These tubercles ulcerated and were covered with crusts, and when you would grasp one and squeeze it between the fingers, you could see that the inside was granular-looking, like a fig. We examined some of his sputum, but there was no tubercle bacillus to be found in it. The doctor took a piece out of one of the crusts, and the first thing he struck was the small round bodies as shown under the microscope. These have a clear double contoured membrane and granular contents. Just exactly what these organisms are we do not know. Previous to this case two other cases have been reported. As far as the diagnosis of the disease is concerned, from the symptoms alone would be rather difficult. He came to the conclusion that it could not be iodide of potash poisoning—for these tubercles looked very much like the iodide rash—because the man had not been taking iodide of potash. We exclude the mycosis fungoides from the fact that there was no preceding erythematous stage nor such lesions on the body. He here exhibited a photo showing a case of mycosis fungoides. In this you can get an idea of the eczema of the hands and arms, and the tomato-like masses were well shown. There was no history of syphilitic disease. In one of Rexford's cases the disease started in the lungs, to later break out on the integument. What we call this micro-organism, we do not know. Rexford's cases were submitted to the best experts we have on these micro-organisms. We expect the disease will be fatal in

this case. The disease occurred in a young German of twenty-one years, who came to California at three years of age.

Discussion in Surgery.

Diseases of the Kidney Amenable to Surgical Treatment.

Dr. Christian Fenger, Chicago, read this paper. The subject was a large one, he stated at the outset. The origin of the surgery of the kidney was in 1869—thirty years ago. This new field of surgery developed rapidly as is well seen from a review of the literature; for instance, from 1889 to 1899, what he called the third decade, no less than 800 papers had been published on this one subject. Within the last five years came the surgery of the ureter. It is represented in the literature for the last ten years by about ninety papers. We can divide the surgery of the kidney into two periods. The first ten years we can term the period of nephrectomy. During this term the loss of one kidney was not considered so much as a cure of the patient. This period did not terminate after this ten years; but the dawn of the second period, or the period of conservatism commenced, instead of nephrectomy, a less radical operation to locate the disease, without sacrificing the tissue of the kidney at its beginning. In 1881 Hahn made nephrorraphy for floating kidney. But by far the most important step and one whose consequences have been most far-reaching, covering the entire field of surgery, we owe to Henry Morris, of London, who, on February 11, 1880, had the courage to open up the healthy kidney tissue and remove an oxalate of limestone from the healthy kidney by an incision through the renal parenchyma. No operator had had the courage to do this before, but from suppurating and distended kidneys which did not bleed when we cut through them. From Morris' important operation dates the possibility of the development of conservatism, which is pressing forward, fighting its way toward the goal of renal surgery, which is not the cure of the patient, but it is the preservation for the patient of the tissue that is valuable for secretion. Morris' operation has made it possible to save the kidney from the destroying influence of stone, to operate on the healthy kidney with a stone in it. In the third decade, the latest step forward in conservatism is the surgery of the ureter. It is a somewhat limited field. With the exception of ureterectomy for tuberculous infection, which is only a small part of it, the whole of the field of surgery of the ureter has for its aim absolutely nothing but conservatism of the kidney.

It is a matter of vital necessity for any one who operates on the kidneys to examine the urine for the quantity of urea before any operating is done. There is compensatory hyper-

trophy of a healthy kidney when its fellow has been removed or destroyed by disease. The urine must be withdrawn and collected in sterilized test tubes. Examination of the urine must be made without delay, because urine changes rapidly by decomposition. There should be a chemical examination for albumen, blood and sugar. There should be a quantitative examination of the urine. We have got to know the quantity of the urea for twenty-four hours. The life of the patient depends upon that. Dr. Fenger spoke of the use of the cystoscope, and the most important step in diagnosis, the last step, the step that gives us the final answer to the question, what the matter is, *i.e.*, direct examination of the kidney through an incision in the lumbar region or the peritoneal incision. The lumbar method permits of much more direct examination of the kidney than the abdominal one. The peritoneal is seldom resorted to, whilst the lumbar incision is the one in daily use. The essayist then spoke of the manner of controlling renal hemorrhage by compression either with the fingers, or the clamp. If that does not stop the hemorrhage, it is sutured. Failing this we have to pack the opening of the kidney into the pelvis and trust to the compression of the gauze. Dr. Fenger next took up the different diseases of the kidney for which we operate, and in a classical manner described each and the indications for and against operation. In concluding his very able and exhaustive paper, Dr. Fenger returned his sincerest thanks to the Association for the opportunity that had been extended to him to meet the medical gentlemen of the Province of Ontario.

Election of Officers.

President, J. E. Graham; First Vice-President, A. H. Wright, Toronto; Second Vice-President, M. I. Beeman, Newburgh Third Vice-President, R. J. Trimble, Queenston; Fourth Vice-President, A. F. McKenzie, Monkton; General Secretary, Harold C. Parsons, Toronto; Assistant Secretary, E. H. Stafford, Toronto; Treasurer, Geo. H. Carveth.

Dr. William Britton presented the report of the Committee *re* Health of Public and High School Children. In connection with this report it was recommended: (1) That the number of subjects of study prescribed by the Education Department be lessened. (2) That home work be curtailed. (3) That less exacting examinations be imposed on the pupils. (4) That more time during school hours be devoted to physical culture. (5) That trustees should confer with members of the medical profession, as to lighting, ventilation and capacity of school rooms. (6) That the curriculum generally should be framed with full consideration of the paramount necessity for preserving the physical health of the rising generation.

The report was adopted.

Re Hospital Abuse.

Dr. W. J. Wilson read the report of the Committee appointed for this purpose.

Your Committee find on investigation as follows:

1. The general tax paid by the public for medical and surgical attendance is dwindling and the willingness of the public to be pauperized increasing.

2. This is due mainly to the mode of management of the hospitals and the operation of "The Charities and Public Health Acts" under which $110,000 is expended in a per capita rate on the hospital alone. Successive changes of the law tend towards the socializing of the profession and the curtailing of the domain of the private practitioner.

3. Particular instances of the evil are as follows:

(*a*) Out-patient departments, so far as we can find out, with only one exception are in the habit of handing the prescriptions to the patients, who carry them away and frequently hand them around among their friends.

(*b*) The Emergency Hospital of Toronto is being utilized at practically no expense to the patients, for daily accidents of all kinds which, till this hospital began operations, invariably went to private practitioners.

This we find to be a direct violation of our Code of Ethics, Art. 5, Sec. 8.

Therefore your Committee beg leave to suggest:

1. That the Committee on Legislation be requested to present to this Association at its next meeting a review of the operation of "The Charities and Public Health Acts" and their effects upon the status and emoluments of the profession.

2. That the Committee has confidence in both the ability and the willingness of the various hospital boards to remedy the evils complained of, particularly after attention has been directed to specific instances of what your Committee humbly believe to be wrong.

3. Your Committee recommend that it be made a rule in all hospitals that no patients be entitled to free treatment whose hospital maintenance is provided for, including society patients paid for by lodges, except as an act of charity.

4. That all prescriptions in the out-door department of our hospitals and of the various dispensaries be kept on file and not taken away by the patients.

5. That emergency hospitals should simply render "first aid" and relieve the patient until his family physician or substitute arrives, when the further care of the case be handed over to him unless it be a case which will receive a municipal order, when it will be treated by the usual hospital staff.

6. That the sending of accident cases by wealthy corporations, and especially when there is an accident insurance carried on employees, be carefully looked into and any abuses resulting remedied.

This report was unanimously adopted.

Dr. E. J. Barrick presented the report of the Committee dealing with the consumptive poor, which was adopted.

Dr. Wm. Oldright presented the report of the Public Health Committee in regard to the treatment of inebriates, which was adopted.

The Treasurer and Secretary presented their reports.

Motion for adoption. Carried.

Dr. G. B. Smith presented the report of the Committee on Necrology: Drs. H. H. Wright, Toronto; H. P. Wright, Ottawa; J. H. Mullin, Hamilton; William Youker, Belleville, and Patullo, Toronto.

The usual *honoraria* and votes of thanks were then passed, and the meeting adjourned to meet in Toronto in June, 1900.

Editorials.

THE MEETING OF THE ONTARIO MEDICAL ASSOCIATION.

The recent meeting of the Ontario Medical Association was a fairly good one, although the attendance was not large. The presence of Dr. Wilson, of Philadelphia; Dr. Fenger, of Chicago; and Dr. Wilder, of New York State, added much to the interest taken in the proceedings. Dr. Gibson, of Belleville, the President, was prompt and impartial in his rulings, and through his good judgment and tact did much to make the meeting run smoothly. The principal innovation, as compared with former meetings, was the banquet held on the evening of the first day, instead of the luncheon formerly supplied by the profession of Toronto. A large number of local physicians expressed their regrets respecting not so much the time and character of the banquet as the fact that outsiders were asked to buy their tickets. We are heartily in sympathy with the views of these gentlemen, and believe that Toronto ought to be allowed to entertain the members living out of the city. We are glad to be able to say that the change in the by-laws relating to the entertainment was made on the suggestion of certain non-residents who expressed the opinion that the profession of Toronto should not be asked to entertain, except in a purely private way.

The election of Dr. Jas. E. Graham to the presidency appeared to give full satisfaction to all the members, who freely expressed deep regret at his absence from the meeting, and especially the cause of his absence. He was one of the most active promoters connected with the inauguration of the Society in 1881. It will be remembered by those familiar with the events of that year that some physicians, especially those living in the vicinity of Ottawa, were opposed to the formation of a new society. They feared it might interfere to some extent with the success of the Canadian Medical Association. Dr. Graham thought the new society would not injure the old one, and corresponded with many physicians in all parts of the Province with the object of getting their views on the question. He found, with the exception already mentioned, that there was a general

consensus of opinion in favor of the new organization. It is probably unnecessary to mention that it is now generally conceded that the promoters, who were chiefly physicians of Hamilton and Toronto, established eighteen years ago a medical society which, in many, if not all, respects, is the most successful that Canada has known.

A LOCAL HABITATION FOR A NATIONAL MEDICAL ASSOCIATION.

The American Medical Association is in many respects, perhaps—as to vital points—in all respects, similar to our own Canadian Association. We in this country have watched the career of the large society across the border with great interest. For many years it was greatly weakened by internal dissensions, and especially by the serious split which occurred about the time of the meeting of the International Medical Congress at Washington in 1887. For some years many of the brighter lights in large medical centres completely ignored the national organization. A great improvement has, however, recently taken place, and we are glad to know that the recent meeting at Columbus was in all respects an excellent one.

The President, Dr. Mathews, of Louisville, in his address dealt with many subjects of interest connected with "Our National Body," but referred to one question which has often been discussed by members of our national body in Canada. The question was, "Shall we have a local habitation?" The *New York Medical Journal* by way of comment says: "It is satisfactory to find that Dr. Mathews favors a local habitation for the Association, and we have no fault to find with his choice of Washington as the locality, although we have recently favored a number of central cities as places in which the Association should meet in turn."

In Canada many have advocated one fixed place of meeting for our Association, and have suggested the capital, Ottawa, as the proper city; others have pointed out that in the past the meetings at Ottawa have not been as largely attended as those in other cities. We have to recognize the fact that our most successful meetings have been held in Montreal, and many think that it would be unfortunate to make any rule that would

prevent us from frequently going to that city. Others have suggested a plan similar to that which has been favored by the *New York Journal* in the United States, *i.e.*, the selection of a number of cities (say, four) where the Association would meet in turn. While we have referred to certain opinions that have been expressed mostly in an informal way, we should add that a large proportion of the members of our Dominion Association prefer to make no fixed rule as to place or places of meeting, but rather to leave the question always open, and allow the Society to decide from year to year where the meetings shall be held.

THE LONDON POLYCLINIC.

We have before referred to the establishment of a Polyclinic and Medical Graduates' College in London, England, where the vast amount of clinical material will be utilized to better advantage in the interests of medical graduates than it has been in the past. We learn from the *Practitioner* that the institution is now suitably housed in a building which was formerly a High School for girls. We quote as follows from the article referred to in the *Practitioner*: "There is ample room for the lectures and demonstrations and also for laboratories. There is to be a convenient reading-room, and it is expected that, owing to the liberality of Mr. Jonathan Hutchison, there will shortly be a valuable museum. In short, the institution will be fully equipped for its work, which is the provision of opportunities for country practitioners and men in the service of keeping themselves, with a minimum of trouble, posted in the latest advances in methods of investigation and of medical and surgical treatment, and for foreign doctors of seeing something of the immense amount and variety of clinical material which London offers beyond all other centres of population in the world. It is necessary to emphasize the fact that the Polyclinic is not intended to be in any sense a rival of the general or special hospitals; nor is there the most remote prospect of its developing or rather degenerating into a twelfth metropolitan medical school. It is distinctly and exclusively for men who, in a medical sense, are no longer *in statu pupillari*, and who wish to perfect, in one direction or another, the knowledge and

the skill which they have already acquired in their respective schools. . . . The Polyclinic, in fact, will work in co-operation with the general practitioner on the one hand, and with the hospital on the other—never in competition with either. The reading-room will supply the stranger in London with some of the advantages of a club, while at the same time assisting him in his work. In connection with it there will be a bureau where all information may be obtained as to courses of instruction, cases of special interest, operations, etc., at all the hospitals and schools of London. In a word the Polyclinic will take the medical visitor to London in hand from the time of his arrival and 'put him through,' as they say in America." We have no doubt that Canadian physicians who visit Great Britain will gladly make use of this Polyclinic for post-graduate work.

INTERPROVINCIAL REGISTRATION.

"We hold a vaster empire than has been," and without distinction of party or creed we are proud of being citizens of it. At our various medical conventions members from distant provinces seem, and are, glad to meet each other, and do not appear to think each other a bad sort of fellow professionally or otherwise. Why do we then keep our professional relations in such a way that if one of these good fellows steps across the boundary which separates him from the other good fellow's province, and announces himself as ready to practise his profession, he may find himself in a criminal court with the connivance of his good friends of the day before as represented in Council. It may be objected that we have the same feeling of professional admiration and good fellowship for some of our American cousins who attend our meetings, and yet would not wish to open our doors to all who may possess an American permit to practise the healing art. There is this difference, however, that we know there is in some of the neighboring states a deplorable laxity in regard to the requirements for those who shall be permitted to care for life and limb, and we do not know this to be the case in the provinces of this Canadian Confederation. In fact, many believe there is not such in any of the provinces. If there is any doubt on the subject,

let those who have authority—the Medical Councils—appoint one member each (the most exacting member) to form a committee which shall examine into the standing of the recognized colleges, and the requirements for the license in each province. If there be any laggards, let them be brought into line if possible. If all are up to the mark, let us march unitedly forward. If insurmountable difficulties arise, we can abandon or postpone the project, but let us at least make the effort to remove the little hedges that hem in our preserves.

We are glad to see that the Ontario Medical Association at its recent meeting passed a resolution unanimously approving of a principle of interprovincial registration, and another providing for the appointment of a permanent committee to aid in its furtherance, " said committee to continue in existence until interprovincial registration shall become an established fact." We trust that the various medical councils will cease to show the Chinese indifference to barriers which are even smaller than the great wall of China. W. O.

Dr. L. F. Barker and Dr. Thos. S. Cullen, two well-known graduates, have done admirable work at Johns Hopkins Hospital, Baltimore. We are glad to be able to announce that George N. Morang & Co., of Toronto, are publishing two books from these able young authors: a work on the Nervous System by Dr. Barker, and a book on Cancer of the Uterus by Dr. Cullen.

THE CANADIAN MEDICAL ASSOCIATION.—As before announced the next meeting of the Canadian Medical Association will be held in Toronto, August 30th, 31st, and September 1st. Members who propose to present papers are requested to send titles of the same to the Secretary not later than July 15th. It is expected that there will be a large exhibit of pathological specimens, under the charge of a special committee, of which Dr. A. Primrose is chairman. We are not sure that the dates selected for the meeting are the most suitable in all respects, but we understand that they were fixed chiefly to suit the convenience of many eastern, as well as a certain number of western, members. Appearances at present indicate a large and successful meeting.

Personals.

Dr. J. J. Williams, of Lisle, was married to Miss Annie Perkins, June 7th.

The Sixth International Otological Congress will take place in London, beginning August 8th.

Dr. Bowditch, of Boston, while attending the Ontario Medical Association meeting, was the guest of Dr. N. A. Powell.

Dr. George Waters, who has been practising in Cobourg for thirty years, has gone for a trip to Europe.

Dr. H. J. Hamilton, of Toronto, went to Gravenhurst, June 24th, and remained a few days with Dr. Jas. E. Graham.

Dr. H. P. H. Galloway, Bloor Street, Toronto, has been elected a member of the American Orthopedic Association.

Dr. Jas. F. W. Ross, Toronto, attended the meeting of the American Medical Association, held in Columbus, Ohio, in June.

Dr. Price-Brown was elected a member of the Council of the American Laryngological, Rhinological and Otological Society at its recent annual meeting in Cincinnati.

Dr. Campbell Davidson, Externe Pathologist at the Montreal General Hospital, has given up the latter appointment, and has left for Vancouver to join the SS. *Tartar* as Surgeon.

William Mitchell Banks, M.D., F.R.C.S., who delivered the address in surgery at the Montreal meeting of the British Medical Association, received recently the degree of LL.D. from Edinburgh University.

Dr. Wilson, of Philadelphia, while in attendance at the recent meeting of the Ontario Medical Association in Toronto, was the guest of Dr. Allen Baines. He also spent a day at the Brookdale Trout Preserve at Uxbridge.

Dr. Simon Flexner, Professor of Pathological Anatomy in the Johns Hopkins University, has accepted the chair of General Pathology in the University of Pennsylvania, in succession to Dr. John Guitéras, who goes to Havana.

Dr. Donald Annom (Tor. '74) is still in London, England. He was recently elected a member of the Anatomical Society of Great Britain and Ireland. He was also a member of the Executive Committee appointed to aid in raising funds for University College Hospital by means of entertainments, and a member of the Executive Committee of the Hospital Conversazione held in June. He is still a Demonstrator of Anatomy at the University College Medical College.

Progress of Medical Science.

THERAPEUTICS.

IN CHARGE OF GRAHAM CHAMBERS AND J. T. FOTHERINGHAM.

Some Uses of Formaldehyde.

Mitchell, of Bradford, England, in *British Med. Jour.*, February 11th, 1899, gives a very interesting account of the successful use of formalin as escharotic in the removal of sarcoma of the jaw, a second recurrence and inoperable. He employed it to check hemorrhage from a fungating portion of the growth, which was fully as large as a man's fist. After applying solution of india rubber to protect the surrounding part he applied over the bleeding area a pad of absorbent cotton soaked in a formalin solution containing 20 per cent. formic aldehyde and carried it in with gutta percha tissue and a bandage. In twenty-four hours there was a necrosis of a quarter of an inch in depth. By constant repetition of the process he "eventually removed the tumor completely," using, of course, sharp spoon and scalpel every day for removal of dead tissue, and carefully leaving enough of the latter to avoid hemorrhage. The pain was pretty severe at times but easily controlled by nepenthe. After a few days' suspension of the use of the formalin a line of demarcation formed exactly like that in dry senile gangrene of the toes. The interesting communication ends with the following conclusions:

1. It is simple in the extreme, requiring no special apparatus, and can be applied without an anesthetic.
2. It produces no shock.
3. It does not, like electrolysis, set up a diffuse suppurative process, being not only aseptic, but powerfully antiseptic.
4. It is bloodless, and can be applied to very vascular growths, as this case shows.
5. It has very much greater penetrating power, and hence effects a more rapid removal than the usual escharotics, and its application does not like those give rise to a disintegrative or caustic process, with the resulting discharge, but is what I might term a necropoietic process, and with no discharge whatever.
6. As there is no discharge scarcely any dressing material is required, and an economy is thus effected.
7. During the paring away of the necrosed parts the macroscopic limits of such a tumor can easily be seen on the dry

clean-cut surfaces, and an indication is thus given as to the direction in which it is necessary to proceed further. The pieces removed can be subjected to microscopic examination for the same purpose.

8. Above all the process appears to be efficient and safe if care is taken.

The drawbacks are: (1) The pain, which is at times pretty severe, but can of course be relieved by an anodyne; and (2) the edema, which is always annoying, and might if extending to the glottis be fatal.

The systemic absorption of the formalin is apt to, and in this case did, produce an annoying general urticaria, thus showing its relationship to formic acid. There was at the same time a slight rise of temperature. The urticarial irritation was easily subdued by carbolic acid lotion.

The writer has never seen anything more satisfactory in therapeutics than the immediate and absolute control of hyperidrosis of the feet by formaldehyde. One peculiarly offensive and obstinate case, hereditary, too, it was, which was quite uncontrollable by chromic acid, permanganate of potash, etc., was at once cured, not of the malodorousness only but of the sweating, by nightly application to the feet of a ten per cent. watery solution. In *Merck's Archives*, March, 1899, F. E. Stewart, of New York, has a very useful account of some of its medical and surgical uses. He refers to the experience of Tretrop (*Bull. Gen. de Therap.*, lxv., p. 376) with it as a dressing to suppurating sores. The irrigations and dressings of formaldehyde rapidly check the suppurative process, and the author thinks that the use of the above solutions will exert a favorable influence in the treatment of a frequent complication of wounds —suppuration—the duration of which it noticeably shortens. In genito-urinary diseases its uses are many. In soft chancre as a local application in the ordinary liquid form it is as efficacious as pure carbolic acid. It is applied by means of cotton fastened to the end of a probe, and twelve hours afterward the ulcer becomes absolutely dry, the feel being that of a frozen surface. A single application is frequently sufficient to cause the chancre to heal. Cauterization with formaldehyde, as with carbolic acid, is said never to determine induration of the chancre.

In the treatment of gonorrhea in the female results obtained by Dr. Saret (*Medical Weekly*, lv., p. 297) are so favorable that he says that it ought to be employed in all cases of gonorrhea in women. Dr. Von Winckel, Professor of Obstetrics and Gynecology at the Medical Faculty of Munich (*Therap. Monats.*, No. 7), has found, in the course of treating 155 patients, that formaldehyde is an excellent remedy for gonorrheal vaginitis and

endometritis. In such cases, he has recourse to vaginal injections of a liquid containing a teaspoonful of liquid formaldehyde in a litre of water, and to cauterization of the cervix and intra-uterine mucosa with the same solution. In gonorrhea in the male Lamarique (*Mercredi Med.*, September 11th, 1895) speaks very highly of its value. For irrigation he uses a 1:500 solution; for instillations a 1:10 solution. The application causes a sharp but transient pain.

Other conditions in which most favorable results are reported are whooping-cough and diphtheria, in which either vapor or spray are inhaled, strength usually a 1 per cent. solution; atrophic rhinitis and ozena, in which dilute solutions, preceded by cocaine to prevent pain, will sometimes entirely control, not only crust formation but also odor. Solis-Cohen employs a solution containing from 1 to 10 per cent. of liquid formaldehyde, which he considers superior to any other remedy for the treatment of laryngeal tuberculosis, whether infiltrative, ulcerative, or vegetative.

T. J. Gallagher, of Denver, in cases of tubercular laryngitis, cleans with hydrogen dioxide, cocainizes, and applies from ½ to 10 per cent. of formaldehyde. It shrinks vegetations, gives comfort, penetrates infiltrated tissues. If too strong it may cause dry gangrene.

J. M. Davidson (*British Med. Jour.*, No. 18,291, p. 143) speaks very highly of 1:2,000 or 1:3,000 solution in septic and infiltrated abrasions of the cornea. He claims that the severe pain of hypopyon ulcer is speedily relieved by solutions of that strength, and that they produce no irritation. Gessner (*New York Med. Jour.*, lxi., p. 727) has cured purulent ophthalmia with corneal ulcer in four days by washing the eyes every two hours with a 1-10th to 1-15th per cent. solution. The absence of poisonous properties, and great power of penetration to deeper tissues render it most valuable in all corneal inflammations of a suppurative type.

The following summary which appears in *Merck's Archives* for March, 1899, gives a general idea of the purposes for which formaldehyde has been employed as a therapeutic agent and the proportions recommended. It should be remembered, however, that the following proportions are those of absolute formaldehyde, and that 2½ parts of the 40 per cent. solution should therefore in every instance, replace 1 part of formaldehyde as given below:

A solution of formaldehyde containing 1 part in 125,000 kills anthrax bacilli; 1 part in 50,000 prevents the development of typhus bacilli, etc.; 1 part in 25,000 forms a useful injection in leucorrhea, etc.; 1 part in 2,500 is said to destroy the most persistent micro-organisms in one hour: 1 part in 500 for the irri-

gation of catheters, etc., and as a mouth-wash; 1 part in 250 to 200, a general disinfectant solution for washing hands, instruments, etc., in surgery, spraying sick-rooms, and as a deodorant; 1 part in 100 in lupus, psoriasis, and skin diseases; 1 part in 50 to 25 sterilizes surgical catgut, silk, etc., by steeping.

OBSTETRICS AND GYNECOLOGY.

IN CHARGE OF ADAM H. WRIGHT, JAMES F. W. ROSS, ALBERT A. MACDONALD, H. C. SCADDING AND K. C. McILWRAITH.

Orexin in the Vomiting of Pregnancy.

Orexin was given in nine cases in 4½-grain doses in wafers. It gave relief in every case, usually after a few doses. The remedy was successful where other remedies had failed, and the relief continued even after the drug was discontinued.—*F. Hermanni in the Therapist*, February, 1899.

Treatment of Leucorrhea with Argentamin.

A. G. Cipriani gives the result of the treatment of twenty-nine cases with this remedy. For ordinary washing out of the vagina he used solutions of 1:5000 or 1:4000, but for disinfection, solutions of 1:3000, 1:2000 or 1:1000. In simple leucorrhea due to inflammation of the vagina, irrigation of argentamin solution 1:1000 together with a strengthening diet, effected complete cure in nine cases. He had especial success in those cases of purulent and muco-purulent leucorrhea which so frequently occurs in little girls. In eleven patients argentamin solutions 1:3000 were successful, seven were completely cured, three almost cured, and one much improved. The treatment (*a*) decreased the discharge, (*b*) caused disappearance of pus, (*c*) improved the general health. Six cases of gonorrheal leucorrhea, four acute and two chronic, were completely cured in ten days. A solution of 1:2000 was used, and the patients kept under observation for some days after the disappearance of the discharge. In three cases of malignant growth the argentamin solutions lessened the discharges considerably.

Albuminuria and Lactation.

A mother's inability to nurse her child is recognized as a great misfortune; so also is anything that renders it improper for her to do so. Hence it is exceedingly satisfactory to learn that at a recent meeting of the Paris Obstetrical Society (*Progrès Médical*, April 1st) Dr. Budin and Dr. Chavanne reported the results of their extensive observations of women who,

although they had had albuminuria with their pregnancy, and in many instances puerperal eclampsia, nursed their children—satisfactory because it has been held that such women should not undertake lactation. Budin and Chavanne find that the children thrive and that the albuminuria promptly disappears. —*N.Y. Med. Jour.*

Kuestner's Abdominal Incision.

Dr. R. W. Westbrook reported (Brooklyn Surgical Society) his experience with the incision known as the suprasymphyseal cross-incision of Kuestner, designed to avoid disfiguring scars of the abdominal wall after abdominal section. It permits of a moderate-sized opening into the lower abdomen for operations on the female pelvic organs.

The incision is a transverse slightly curved skin incision, with its concavity upwards, made a short distance above the symphysis pubis, and about three to five inches long. It is carried down to the aponeurosis of the abdominal muscles. This skin flap, with its fat, is then liberated with a few strokes of the knife, as far as possible in the direction of the umbilicus, and retracted and held by a temporary suture passing through its edge and through the skin of the abdomen above the umbilicus. A longitudinal abdominal incision in the middle line is then made as usual into the abdominal cavity, through the remaining layers of the uncovered area. This latter incision may measure two to three inches or more in length, and with suitable retractors allows of a fairly roomy opening. The wound may be closed with a running catgut suture to the peritoneum, a chromicized catgut or kangaroo-tendon suture for the muscular layer and aponeurosis, and a subcuticular suture of silk or silkworm gut for the transverse skin incision. The scar resulting on the abdomen is soon covered by the pubic hair, or is hardly visible in the natural skin folds of the lower abdomen. A small, simple dressing will cover the wound.—*The Brooklyn Journal.*

Gelatin Injections in Aortic Aneurism.

At a meeting of the Johns Hopkins Hospital Medical Society, in January last, Dr. Fletcher showed four cases of aortic aneurism treated by subcutaneous injections of gelatin solutions after the method of Lancereau and Huchard. The injections are always to be made at some distance from the aneurism. It was found that the two per cent. solutions of gelatin in normal salt solution, recommended by Lancereau, gave great pain, and subsequently one per cent. solutions, as recommended by Huchard, were used.

The first of Dr. Futcher's cases had a saccular aneurism of the arch of the aorta. He unfortunately died of a perforation

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