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THE RELATION OF OVARIAN DISEASE TO INSANITY AND ITS TREATMENT.*

BY A. T. HOBBS, M.D., LONDON, ONT.

The mental life of woman conforms to the great physiological divisions of her physical existence, covering the the periods from childhood to womanhood, from womanhood to the menopause, and from the menopause through her declining years. The mental characteristics vary markedly with the changing periods. The romping and hoidenish girl of the first takes on all the instincts of vigorous motherhood pertaining to the second period, and these give way at the menopause to the placid contentment and sedateness of advancing age.

Coincident with these physical and mental transitions occur changes in the reproductive system, the proper performance of which exercises a vital importance on the well-being of woman. The development of ovulation, the continuance of the ovarian function, and the cessation of this physiological process are full of perils for the female sex. The germinating organism, weighing in all only 80 grains, is liable to the ingrafting of pathological processes at any period of existence, but more especially when ovulation is active. When such lesions occur, the disturbance of functioning ensues, and this is succeeded by a series of nerve storms ranging in gravity from localized abnormal sensations to profound mental derangement. It is curious, but nevertheless true, that alienist writers

*Read before Lambton County Medical Society, February, 1901.

generally overlook, or take but little notice of these ovarian lesions, which are such important factors in the causation of insanity. They devote more attention to the insanity brought on by irregularities of menstruation, when many of these irregularities are simply indicators of disorders of ovulation. The germ-producing organ is certainly of a more delicate structure, and more highly complex, and, therefore, must exercise a greater potentiality in the human economy than a mere receiving organ. The interdependence of the organ of reason and the organ of reproduction is clearly shown by the history of 40 cases of ovarian disease with complicating insanity, and by the good mental results which followed the surgical treatment of the different ovarian lesions. The accidents and diseases resulting from maternity do not occupy as prominent a place in initiating disease of the ovary as one would suppose, as 20 out of the 40 cases had never borne children. The influence of heredity is a feature that cannot be overlooked, as 40 per cent. of these cases gave a direct or indirect history of hereditary tendency, and the probability is that the percentage would be larger still if a complete inquiry had been made into the family record for two or three preceding generations.

The diseases of the ovaries affecting these 40 cases fairly covered the gynecic range. They consisted of cysts that were all either simple, multicocular, dermoid or papillomatous, weighing from a few drachms to fifteen pounds; or were fibroid degenerations, ovarian abscesses, hematomas, inflammatory affections, and prolapsed conditions.

In 28 of the 40 cases there were present complicating lesions of other pelvic organs. Thorough examination of the pelvic organs of these patients under anesthesia was invariably carried out, and even then it was not always easy to determine whether the ovary or ovaries were sufficiently diseased to warrant even an exploratory incision, as it is not necessary for an ovary to be enlarged to be badly diseased.

The insanity occurring in many of these ovarian cases usually appeared during the onset of ovulation, or a few days prior to menstruation, or the maniacal propensities or delusions already existent in a chronic became exaggerated. Coupling a history such as this of an insane patient with a peculiar resilient feel obtained in a bi-manual examination of an ovary only slightly enlarged, quite a fairly positive diagnosis can be made of a diseased cystic ovarian condition.

The most frequent type of ovarian insanity is that of mania. Maniacal symptoms were present in over 90 per cent. Sexual delusions were the exception, but when present were pronounced. Excitability, talkativeness, restlessness and de-

structiveness were the main features evidenced in the maniacal. Even the melancholics became excited and more talkative with the onset of ovulation.

The preparatory treatment followed the usual surgical rules as far as practicable, but special care was taken with the preparation immediately prior to operation when the patient was under the anesthetic. The operations necessarily varied according to the complications present. In seven of these patients it was found necessary to do hysterectomy, four by the abdominal route, and three per vaginum; in 24 cases single or double oophorectomy was done, but in the remaining nine a part of one or both ovaries was preserved after the excision of the diseased portion. Out of the 40 cases two, or 5 per cent., died—case No. 2 from pneumonia on the 12th day, and case No. 146 in a week succeeding operation from septic pneumonia. The pus tubes and ovarian abscesses in the latter patient unfortunately ruptured during operation. The remaining 38 or 95 per cent. made good physical recoveries.

As to the subsequent mental history of these cases, the results were surprisingly good. The majority of those who recovered improved rapidly after operation, being perfectly well mentally inside of three months. Some, however, took a year to regain their normal mental attitude.

The mental classification and recovery rate was as follows:

Acute mania in	10	cases with 7 recoveries.
Chronic mania in	22	“ “ 8 “
Epileptic mania in	2	“ “ 9 “
Folie circulaire in	2	“ “ 1 “
Psychocoma in	1	“ “ 1 “
Acute melancholia in	3	“ “ 2 “

Of the 19, or 47½ per cent. who recovered, 6 had been insane under 1 year, 14 between 1 and 2 years, 1 between 2 and 3 years, 3 between 4 and 5 years, and 4 over 5 years. There were also 10 or 25 per cent. who improved and are still improving—2 of whom have been insane less than 1 year, 1 between 1 and 2 years, 2 between 2 and 3 years, 1 between 3 and 4 years, and 4 over 5 years.

Heredity, directly and indirectly, affected 16, or 40 per cent. of the whole. Following operation on the two epileptics there was absolutely no mental result and the convulsive attacks still continue.

Taking the 12 uncomplicated cases there were 7, or 58 per cent., recoveries and 2, or 17 per cent., improved, or a total of 75 per cent. who received mental benefit as a result of the surgical treatment.

In 28 ovarian cases there were present other lesions which necessitated additional treatment, rendering the chances of

mental recovery somewhat less, although 12, or 43 per cent., recovered, while 8, or 28 per cent., improved. This would show that 71 per cent. of the cases that were complicated were immensely bettered by operative measures.

As illustrative of the good work succeeding the treatment of pelvic lesions, I will detail the history of a few cases according to the numbers they occupy in the gynecological list.

CASE 1.—Admitted December 16th, 1899, at age of 27, was single. Had been insane eight months prior to admission. No hereditary history. At the time of operation, April 27th, 1893, she was classified as a chronic maniac, with marked sexual delusions, and was at times violent and destructive. Both ovaries being badly diseased, were removed. Her mental recovery was slow, but steadily progressive. She was discharged perfectly well, both physically and mentally, on September 11th, 1896, after an asylum residence of seven years.

CASE 51.—Was admitted November 10th, 1896, at age of 25. She was unmarried, and of good education. Her father was at one time mentally deranged for a short period. This patient had, before operation December 1st, 1896, been in other asylums since May 28th, 1892. A left ovarian cyst as large as an orange was removed, and the left ovary being adherent was partially excised. For two months she had two or three violent outbursts of excitement, and destroyed all her clothing. After that time she seemed to become suddenly well, and remained so until her discharge on September 12th, 1897, after spending 5½ years in three different asylums for insane, and classified as a chronic, hopeless maniac.

CASE 56.—Was admitted on December 3rd, 1896, at the age of 30. She had had three children. This case was one of peculiar interest. She was found wandering in a condition of dementia, on the G.T.R. station platform in London. She could give absolutely no history of herself. After a residence of a month in jail she was removed to the asylum for treatment. On December 29th, 1896, she was operated upon. The uterus and ovaries were grossly diseased and bound down in pelvis. The uterus when freed was suspended to the abdominal wall, but both ovaries were so badly diseased that they were removed. Subsequent to operation she was very excited and noisy for two days, and woke up on the third morning perfectly well, mentally. She then detailed a full history of herself: how she had been insane for some time previously in the United States, and being discharged improved from a U. S. asylum; she relapsed mentally and finally got separated from her family and wandered to London. She was discharged, fully recovered, on June 16th, 1897, and sent to her friends in Pennsylvania.

CASE 111.—Admitted on June 4th, 1897. Was married, no children, but had a miscarriage. No heredity. On May 10th, 1898, she was operated on for a diseased cervix uteri and a displaced uterus by the Alexander method. She made a good physical recovery, but her mental condition got worse. She was kept in the refractory ward most of the time. It was noticed that the insanity was exaggerated at time of ovulation, and on examination the right ovary felt a little enlarged and resilient. She was operated upon on December 18th, 1900. The right ovary was found entirely diseased and the left ovary, although not enlarged, was bound down to the broad ligament with a coil of intestine adherent to it. Both ovaries were removed, and since that time she has been perfectly well mentally and is gaining physically.

CASE 227.—Was admitted August 16th, 1900, at the age of 22. Had been married three years, but had no children or miscarriages. Had an eccentric maternal grandmother. She herself had had chorea six years previous to this. Present attack began June 15th, 1900. She was acutely maniacal on admission and remained so until operation, October 23rd, 1900. The ovaries, on examination, felt slightly larger than the normal, the left a little more so than the right. Celiotomy was done and excision of left ovary was made, reducing it to one-third of its former size. The left ovary was relieved by puncture of several cysts. She made a good physical recovery. The mental condition lessened in acuteness immediately, and she gradually improved and was sent home on probation on December 8th, 1900, quite well. She still remains well and has increased considerably in weight.

As to why diseases affecting the organs of ovulation interrupt normal mental functions in so many of the female sex, it is difficult to conjecture. Plausible theories may be advanced as possible explanations of this phenomenon. Two theories are advanced as probable solutions, viz.:

1. The reflex theory: This theory hinges upon the fact that irritation produced in one organ by disease affects its numerous nerve filaments, thence from these through the nerve plexuses connecting the various organs of the body it reflects its irritability upon one or more of the other organs. The brain being but an integral part of the body is just as liable to disturbance of its physiological mental functions, as shown by various insane phases, as is the vomiting which is produced by a pregnant uterus. Insanity is very liable to occur in those whose brains are unstable in character, or are afflicted by an hereditary tendency to mental breakdown when suffering from pelvic disease.

2. The internal secretion theory: This is founded upon a theory advanced by some German physiologists who claim that

Case No.	Insanity.	Duration of Insanity.	Hereditary.	Ovarian Disease.	Operations.	Complications.	Results.	
							Physical.	Mental.
1	Chronic mania.	4 years.	None.	Both ovaries cystic and enlarged.	Ovariectomy.	Cysts of broad ligament.	Recovered.	Recovered.
2	"	11 years.	Nephew.	Left ovarian tumor (cyst).	Ovariectomy.	None.	Died on the 12th day of pneumonia.	Improved.
3	"	21 years.	Cousin epileptic.	Left ovarian tumor (cyst).	Ovariectomy per vaginam.	None.	Recovered.	"
13	"	33 years.	Paternal grandmother.	Both ovaries diseased and adherent.	Ovariectomy.	Retroverted uterus.	"	"
36	"	14 years.	Uncle.	Left ovarian tumor (cyst).	Ovariectomy.	Retroverted uterus.	"	Recovered.
40	"	7 years.	None.	Left ovary diseased and adherent.	Ovariectomy.	Lacerated cervix and perineum.	"	"
51	"	5 years.	Father.	Left ovarian tumor (cyst).	Ovariectomy.	Retroverted uterus.	"	"
56	Psychocoma.	1 year.	None.	Both ovaries diseased and adherent.	Ovariectomy.	Retroverted uterus.	"	"
62	Chronic mania.	2 years.	Father and mother.	Right ovary fibroid and left ovary cystic.	Ovariectomy.	Retroverted uterus.	"	"
64	Acute mania.	1 year.	None.	Both ovaries cystic and prolapsed.	Ovariectomy.	Retroverted uterus.	"	"
67	Chronic mania.	14 years.	Two brothers.	Ovarian tumors (cyst) and adherent.	Abdominal Hysterectomy.	Fibroid tumor of uterus.	"	Improved.
80	"	8 years.	Aunt.	Right ovarian tumor (cyst) and left ovary prolapsed.	Vaginal Hysterectomy.	Chronic metritis, uterus displaced and cervix badly lacerated.	"	Unimproved.
85	"	9 years.	Mother and sister.	Both ovaries prolapsed and completely cystic.	Ovariectomy.	Uterus retroverted and a concretion in appendix.	"	Improved.
88	"	2 years.	None.	Both ovaries cystic.	Vaginal Hysterectomy.	Complete proclitina of uterus and torn cervix.	"	"
90	"	5 years.	"	Papillomatous cyst of left ovary weighing 16 lbs., partly fluid and partly solid.	Abdominal Hysterectomy.	Uterus involved in cyst mass.	"	Recovered.
100	Acute mania (folie circulaire).	6 months.	"	Both ovaries completely diseased.	Ovariectomy.	Uterus acutely antiflexed.	"	Unimproved.
102	Chronic mania.	16 years.	Father, uncle and aunt.	Both ovaries prolapsed and diseased and adherent to pelvic contents.	Abdominal Hysterectomy.	Uterus and all pelvic organs involved in mass.	"	Recovered.
103	"	23 years.	None.	Left ovary found containing a left inguinal hernia.	Ovariectomy (via inguinal canal).	Left inguinal hernia.	"	Unimproved.
111	Chronic folie circulaire.	4 years.	"	Both ovaries diseased, the left being also adherent to a coil of intestine.	Ovariectomy.	Uterus retroverted and cervix lacerated.	"	Recovered.
120	Acute mania.	1 1/2 months.	Brother epileptic.	Left ovarian tumor (cyst) and right ovary also diseased.	Ovariectomy.	None.	"	"
137	Epileptic mania.	10 years.	None.	Both ovaries prolapsed and cystic.	Ovariectomy per vaginam.	None.	"	Unimproved.

CASE No.	INSANITY.	DURATIONS OF ISSUANTY.	HEREDITY.	OVARIAN DISEASES.	OPERATION.	COMPLICATIONS.	RESULTS.	
							PHYSICAL.	MENTAL.
144	Chronic mania.	4 years.	None.	Both ovaries cystic.	Celiotomy and puncture of ovarian cysts. Ovariectomy.	Two pedunculated fibroid tumors. Uterus retroverted.	Recovered.	Unimproved.
145	" "	3 1/2 years.	"	Both ovaries diseased and adherent to cuticle-sac.			"	"
146	Acute mania.	4 months.	Father.	Abscesses of both tubes and ovaries.	Abdominal hysterectomy.	Uterus large and friable.	Diet on the 7th day from septic pneumonia.	
149	" "	10 months.	None.	Cysts of both ovaries.	Celiotomy per vaginam and puncture of cysts. Ovariectomy.	Coil of intestines and knuckle of omentum adherent to pelvis. None.	Recovered.	Recovered.
150	Acute melancholia.	4 months.	Sister	Hematoma of right ovary; dermoid cyst of left.	Ovariectomy.	None.	"	Improved.
153	Chronic mania.	4 years.	None.	Dermoid cyst of left ovary containing teeth and hair.	Ovariectomy.	None.	"	Recovered.
161	" "	5 years.	"	Left ovary diseased and enlarged.	Ovariectomy.	Uterus retroverted.	"	Improved.
157	Acute mania.	10 months.	"	Both ovaries very cystic.	Ovariectomy.	Uterus retroverted.	"	Recovered.
163	" "	7 months.	"	Hematoma of right ovary and cystic condition of left.	Celiotomy and puncture of cysts. Celiotomy and excision of hematoma of right ovary and puncture of cysts of left.	Three uterine fibroids and an adherent appendix. None.	"	Unimproved.
172	Acute melancholia.	1 year.	"	Ovaries and tubes bound down to uterus.	Celiotomy and separation of adherent tubes and ovaries.	Uterus retroverted.	"	Recovered.
177	Acute mania.	4 months.	"	Both ovaries cystic, right more so than the left.	Celiotomy and puncture of cysts.	Uterus retroverted.	"	"
188	Chronic mania.	11 years.	Uncle.	Right ovarian tumor (cyst).	Vaginal hysterectomy.	Uterus adherent to adnexa.	"	Improved.
189	Epileptic mania.	2 months.	None.	Both ovaries diseased, prolapsed and adherent.	Ovariectomy.	Uterus retroverted and cervix lacerated.	"	Unimproved.
191	Chronic mania.	11 years.	"	Right ovary diseased.	Ovariectomy.	Uterus retroverted and had a fibroid tumor.	"	Improved.
203	" "	3 years.	"	Right ovarian tumor (cyst).	Ovariectomy.	Hematoma of right vulva vaginal gland and uterus retrodisplaced.	"	Unimproved.
207	" "	2 months.	"	Left ovary badly cystic.	Celiotomy and puncture of cysts.	Uterus retroverted.	"	Recovered.
214	Acute melancholia.	1 month.	"	Right ovary diseased and prolapsed and adherent to pelvis.	Ovariectomy.	None.	"	"
227	Acute mania.	4 months.	Grandmother.	Both ovaries cystic and larger than normal, especially the left.	Celiotomy and excision of diseased portion of left ovary and puncture of cysts of right.	Uterus retroverted.	"	Improved.
242	" "	6 months.	None.	Both ovaries cystic.	Celiotomy and puncture of cysts.	Uterus retroverted.	"	Improved.

there is "a normal and constant contribution of specific material by the reproductive glands to the blood or lymph, and thence to the whole body," and "this secretion reacts upon the rest of the organism through the nervous system." If this is true, the deduction may be made that the changed condition in the ovary brought about by pathological disease would produce a pathological secretion. If, therefore, the healthy ovarian secretion exercises such a profound effect upon the nervous organism in health, what must be the effect on the nervous system when there is unloaded into the circulation noxious diluents of such unknown potency as the products of deranged ovarian functions.

These theories are offered in explanation of how ovarian disease acts in producing mental alienation.

In conclusion, I desire to emphasize the fact that, from experience gained by the examination and treatment of these cases, it is a serious error for physicians to overlook the functions of ovulation and menstruation in women bordering on the domain of insanity. The determination of the presence or absence of disease of the reproductive organs should be a *sine qua non* in the early treatment of all insane women, and the neglect of this precaution may condemn many of these unfortunates to a life of untold misery until death releases them from mental thralldom.

The table on preceding pages gives details of each case, both mental and physical.

ASHEVILLE, NORTH CAROLINA, AS A HEALTH RESORT FOR PULMONARY TUBERCULOSIS.

By J. PRICE-BROWN, M.D., TORONTO.

This little city in the mountains, the eastern "Garden of the Gods," the "Land of the Sky," is situated, almost as straight as a drop-line, a thousand miles south of Toronto. It lies in the very heart of the lower Blue Ridge region. This noble chain of mountains commences in the rugged highlands of Quebec, and traces its course southwards through New Hampshire, Vermont, New York, Pennsylvania and Virginia, known successively as the Green, White, Adirondacks and Alleghanies, growing in majesty as it stretches southwards into the Blue Ridge Mountains of Western North Carolina and Eastern Tennessee. Here they reach their highest elevations, and stretch out in massiveness and grandeur in successive ridges for many miles. In lower ranges they still extend southward, through South Carolina, Georgia and Alabama, finally merging into the lowlands of the latter State.

In the middle of this highest region, and surrounded by a score of the tallest peaks east of the Rockies, Asheville is situated. The town itself averages 2,300 feet above the sea, and is built upon a succession of lower hills, which look, when surveyed from the summits of any of the mountains around it, like huge billows of the ocean, surrounded by more gigantic ones on every side.

Although they can be observed in every direction, they are the most picturesque to the south and west, and when observed from the top of the great central plateau, half a hundred distinct summits, all between 4,000 and 6,000 feet in height, can be seen stretching in successive ranges, one behind the other, as far as the eye can reach. The scene is one of surpassing loveliness, tinted in various hues, from deep blue to violet and amethyst. The highest peak in this direction is Pisgah, at an elevation of 5,757 feet, while away to the east towers Mount Mitchell, 6,717 feet, the highest of all the mountains in this long range.

Two rivers run through Asheville, the French Broad and the Swannanoah, both beautiful streams; and from the latter, several miles above the city, the water supply is obtained.

The hills and mountains, where not built upon or cultivated, are covered with wood, and the soil is everywhere fertile, although the terra-cotta color of the clay mud gives the surface in many places a peculiar aspect.

The foundations, cellars and lower stories of the houses are usually of brick or stone; but the upper ones, wide verandahs, balconies, porticos, etc., are almost always of wood. Very many of the houses have shingled walls, and these are often tinted of a green, or brown, or olive color.

The usual method of heating the houses is by stoves and fireplaces, and rarely by furnaces; and the fuels consumed are chiefly wood and soft coal. The smoke of the latter has not so far proved a material disadvantage, though it is certainly a detriment to the beauty of the town. The lighting almost throughout is by electricity.

In the poorer localities, particularly those occupied by negroes, one is struck by the peculiarity of the dwellings, as many of them stand on stilts—rude blocks of wood or little piles of bricks supporting the four corners, leaving the under-floors throughout open to every breeze that blows.

Of hotels in Asheville there are a goodly number. The Battery Park Hotel is a fine, handsome structure, supplied with all the modern appointments—large rooms, wide corridors, immense balconies. The entrance floor is devoted to offices, dining halls, reception-rooms, parlors, drawing-room, palm-room, etc.—the latter being filled with tropical trees and plants, and rustic chairs. A piano and two large log fireplaces help to make the room homelike. The view from the verandahs and terraces down to the town and beyond to the mountains is particularly fine. The cuisine is good—waiters are attentive—and the charges from \$4 a day or \$25 a week, upwards.

Kenilworth is another fine hostelry, built to resemble the Kenilworth of poetic fame. It stands at a higher elevation and on the brow of Beaucatcher Mountain. The charges are about the same as those at Battery Park, perhaps a little higher.

The Manor is also a famous resort. The elevation is greater than either of the other two, and is situated on the mountain's brow, in the middle of a handsome park. Built largely of stone and ornate in design, it has a fine appearance and commands a magnificent view of the distant peaks. It accommodates a large number of guests, and has surrounding it several pretty cottages supported by the same management for the benefit of the overflow. The rates are \$15 a week and upwards.

All these hotels profess not to take consumptive guests; but there is little doubt that many people go to them in the early stages of the disease, when the symptoms are too slight to be noticed, or even to be suspected by the proprietors. Besides these, there are many other hotels, and boarding-houses innumerable.

The permanent population of Asheville numbers about 15,000. This is probably the highest limit, one-quarter or one-third of

them being colored. The average floating or visiting population is estimated at 5,000, though this point is a difficult one to accurately estimate. Of course the large majority of these are invalids who come to recuperate their health. During the summer time the influx is from the south, and during the winter from the north and east and west.

Besides all these, there is another element in the daily visitation which is worthy of note—the mountaineers, or poor whites of the hills. They are a long, lanky, lean, lazy, taciturn set of people. With wide sombrero hats, old as the hills, clothes of all hues toned down by time to one color, with hands in pockets and usually without overcoats, they will stand for hours on the streets or around the market square. They and the laughing, garrulous negroes vie with each other in numbers, and all day long may be counted in scores, if not in hundreds. Without money and with nothing apparently to do, one wonders how they eke out an existence. But among the lowest elements of society in the south it does not require much to do that. The commonest foods are cheap—chickens are abundant, if not in your own yard, in that of your neighbor, and the elements deal kindly with all alike.

Then about the physicians. In this city of 20,000 people at the most, all told, there are sixty physicians in good standing, one of whom is a homeopath. We must remember, too, that the colored people, so far as paying a physician is concerned, are practically out of the question. Still the doctors live and dress well. They have their downtown offices and many of them own a pair of horses and have a colored driver, and attend swell parties and clubs, and banquets as well.

The climate of Asheville is believed to be one of the ideal ones of America. For nearly three hundred days in the year the sun shines. The rainfall is rarely severe, and is distributed pretty evenly throughout the year. The nights in winter are rarely very cold. Only occasionally is there severe frost, and never even in the severest weather does it continue many nights in succession. In the summer time the nights are always cool, and although the temperature may range high between 10 a.m. and 5 or 6 p.m., it invariably falls from that hour until the morning, ensuring comfort and rest for the sleeper.

Owing to the equability of rainfall and the comparative evenness of temperature, the relative humidity only averages about 65°, being about the mean between the humidities of New York and Denver, Colorado, the former being about 75°, and the latter 55°. When we add to this that the air is pure, and light and bracing, and that the temperature is such that tuberculous patients can take sun baths out on the verandahs

for hours together almost every day in winter, the indications that the climate is favorable for the treatment of this terrible and all prevailing scourge of the human race, would seem to be certain.

The medical testimony upon this subject is varied in character, although it all points to the material advantages which Asheville offers over other health resorts in the treatment of this disease. During a seven weeks' residence here, I have made many enquiries among leading physicians, and I have also come in actual contact with many people who came to Asheville years ago in a tuberculous condition, and who are now practically well.

First of all, it is conceded on all hands that if patients come to Asheville in the early stages of tuberculosis, when there is little or no fever, but in which there is consolidation of one or both apices without softening, but in which tubercle bacilli can be found in the sputum, cures can in a majority of cases be accomplished, if the patients will place themselves under the care of the physician, and remain say for two years. Over and over again have I heard physicians make the statement that these patients can usually return home and remain free from the disease for years at least, and some of them for life.

Cases in a more advanced condition, even with cavity in one lung and considerable infiltration, as well as commencing throat symptoms and daily rise of temperature of two or three degrees, can also be arrested in many instances and remain free from disease, but may require to remain permanently here, or at least for several years.

As instances, I may briefly refer to several cases. A physician here reported three cases which came for treatment from St. Louis—one of them was a physician. St. Louis is an unhealthy place, with limestone roads, the dust from which produces a good deal of laryngeal irritation. All three had consolidation, fever, bacilli. All remained in Asheville between one and two years, and all returned to St. Louis years ago and are still well.

A barber with cavity in one apex, and consolidation of the other, of tuberculous family, temperature 100°, respiration 26, pulse 100, night sweats, came to Asheville four years ago. He has been under physician's care with serum treatment. Is now well, respiration 16 to 18, pulse 75, temperature normal. Has been working ten hours a day at his business in the town for years.

A leading physician came here from Cincinnati five years ago by recommendation of a lung specialist, as the only chance to prolong his life, not to cure the disease. He is not well now

but he has neither cough, expectoration nor fever, and does one of the largest driving practices in the city.

The physicians state that, although the influence of the climate is invaluable, the benefit derived from it is materially enhanced by the aid of professional care. Hygienic, dietetic and gymnastic measures, as well as regulated exercise are insisted on. The patients are out in the open air a great part of the time both summer and winter. I have seen along the side of the street facing the south during the middle of the day, although there was frost in the air, a dozen patients sitting in the sun on the boarding-house verandahs. They were wrapt as they thought necessary. Some of the women were knitting or sewing, and the men perhaps reading.

Of internal treatment for pulmonary tuberculosis many physicians give little. Others, though they are not numerous, give creosote, etc., etc. Many, however, give medicated inhalations with compressed air; and almost without exception the leading men use the pneumatic cabinet in suitable cases.

Dr. Battle, one of the leading physicians and a scholarly man uses the cabinet daily with many cases, and in the thousands of times in which it has been used in his office, he has never seen hemorrhage produced as a result. Dr. Karl Von Ruc, of the Winyah Sanitarium, says that, instead of producing, he has successfully checked hemorrhage by placing the patient in the pneumatic cabinet, and regulating the density of the air of respiration. Dr. Williams, and others also, eulogize the benefit which patients receive from its use, though all agree that it can only be used in carefully selected cases.

Dr. Battle also has a special cabinet for inhalation of medicated vapor, which he finds in many cases extremely beneficial.

Drs. Sawyer, Paquin, and others believe largely in the benefits to be derived from inhalations, and the former has found material advantage to his patients from an attachment to his apparatus, which induces a species of internal massage to the lung cells.

The question of treatment by Koch's tuberculin and its various derivatives, and also of serum treatment, and treatment by the solution of the tubercle bacilli, is of great moment here. The physicians differing somewhat as to the relative merits of different preparations; but all agreeing that when used at all, the doses should be so regulated as to produce little or no reaction.

All agree, likewise, that exercise in this disease should stop short of fatigue, and should not be indulged in when the patient is in a high febrile condition.

WINYAH SANITARIUM.

This institution is a private one, owned and controlled by Dr. Karl Von Ruc, who has had many years experience in sanitarial treatment of pulmonary tuberculosis. He is probably the only man on the continent who has made a financial success of the private sanitarium, devoted exclusively to the treatment of this disease. Hence, no matter what our own views may be, with regard to the special treatment which he terms specific, his general methods as well as his specific ones, are worthy of the closest consideration; particularly when we remember that he is a specialist, in this disease, of almost world-wide reputation, and has had an immense number of cases pass through his hands. Dr. Von Ruc has also two clever, well-educated assistants, Drs. Dunn and Stevens, who help in the internal management of the institution.

Winyah Sanitarium stands at an elevation of 2,350 feet. It is surrounded by trees in a park covering seventeen acres, and has one of the electric car lines of the city passing within a hundred yards of the entrance, on its way to Look-Out Mountain.

The building is surrounded by verandahs on every side. The parlors are large and well furnished; the bedrooms spacious and commodious, each one being provided with closet, marble washstand, hot and cold water, steam-heating, electric light, etc. The beds are of full size, but two people are never allowed to occupy the same bed or room. The building, accommodating forty patients, is at the present time full; but a new one, to be connected with it by glass corridors, and to accommodate about thirty more patients, is almost finished. In this, as in the original building, every patient will be isolated in a thoroughly completed private room.

Patients are desired only in the first and second stages—the former being of course preferred. Every patient is treated according to the merits or requirements of his own particular case. The usual length of time for patients to remain in the sanitarium is from three months to one year. Rarely longer than the latter; only shorter than the former when financial or other reasons compel the patient to leave.

When patients are discharged, the majority of them are well enough to return to their homes, the disease having been arrested.

The general treatment consists of hygienic, dietetic, climatic and exercise measures. Medicines are rarely administered internally, except as indicated for temporary derangements of one form or another.

Hygiene consists of cleanliness, bathing, ventilation of rooms,

regular hours of rising and retiring, etc. Patients are not allowed out after night except by special permission. In summer, of course, the evening hours are utilized on the wide verandahs.

Dietetics.—When the digestive organs are in good condition, a full diet, with abundance of milk, fresh meat and eggs, is always enjoined; and in this direction, subject to the above, patients can in a large measure choose for themselves. If the stomach is weak and irritable, frequent lavage by the stomach tube will often increase the digestive powers and hasten recovery. The appetite of the patient is a matter of vital importance, and is, therefore, carefully watched and attended to by the physician in charge.

The best of all tonics for the consumptive is rest. Stimulants are never used except medicinally. Von Ruc believes they have no effect whatever in reducing tuberculosis; and as they injure the stomach when given dietetically, they hasten instead of retard the progress of the disease.

Climatic Measures.—The patient should be out in the open air as much as possible, compatible with his systemic condition. When the patient's temperature is subnormal on rising in the morning, a glass of hot milk is given, after which, wrapped up, he sits on a steamer chair on the verandah in any position he finds most comfortable—usually the semi-reclining one—for half an hour before breakfast. Patients who are, in the doctor's opinion, well enough, take five or ten minutes' walk instead. But in all non-febrile cases, one or other of these must be done out in the sunlight.

Breakfast, in all cases able to take meals in the dining-room, is followed by an hour in the sunlight on steamer chair. And in suitable cases, this half hour before meals and one hour after meals, is prescribed for all the meals taken during daylight.

Exercise.—When the patient has little or no fever, walking exercise of ten or fifteen minutes at regular intervals several times a day, becomes part of the routine treatment. When the temperature reaches 100 degrees, all exercise is interdicted, and semi-recumbency in the steamer chair takes its place. But when the patient's temperature registers 101 degrees, he is immediately put to bed and kept there until it becomes materially reduced. If the temperature of same patient becomes normal or subnormal by morning, the steamer chair before breakfast is resumed, together with the other methods spoken of, and the patient carefully watched with regard to heat, as above indicated.

With regard to active exercise—lawn-tennis, bicycling and dancing are all prohibited. Croquet playing allowed when there is little or no fever—walking encouraged—and horseback riding during the latter stages of recovery.

As said before, internal medicines are rarely given. When asked if cod-liver oil was ever given, Von Ruc replied, "Sometimes. When patients decline to take butter or fat, I tell them they must either take cod-liver oil or butter. They usually take the butter. In a few the oil is preferred."

As in the practice of other physicians in the city, the pneumatic cabinet is used at the sanitarium in suitable cases for lung gymnastics, also inhalations of medicated vapor by means of a compound comminutor. In laryngeal cases, where ulceration is slight or not observable, preparations of methyl-blue are blown into the larynx to aid in discovering abrasions, and subsequent applications will tell positively of the progress made.

It is on what he terms his specific treatment, however, added to the above measures, that Von Ruc founds his unusual success in the treatment of pulmonary tuberculosis. This specific is the "watery extract of the tubercle bacilli" obtained from the bodies of the bacilli by a process of his own, and said to be entirely free from everything but proteids.

On going into his laboratory numerous jars filled with cultures of the bacillus in bouillon can be seen in various stages of development, the bacilli in a white mat on the surface and extending up the sides of the jar. The fluid beneath supposed to be filled with the toxins of the bacilli is the foundation for Koch's tuberculin and its various derivations.

According to Von Ruc, the bacilli give off but little toxin, and they themselves are insoluble. The fever of tuberculosis is not the product of the toxin of the bacillus, but of the inflammatory action and caseation produced by the presence of the bacillus. The disintegration and cell detritus poisons the blood and produces the fever.

The comparative failure in treatment of tuberculosis by Koch's tuberculin he assigns to the composition of the fluid used, which consists of fat, cellulose and a small proportion of proteids, the latter being the essential factor in the preparation.

In order to obtain as large a proportion of the latter as possible, and to exclude the other useless elements, he finally succeeded by the following plan. To use his own words, published in 1899:

"The tubercle bacilli are filtered out of the rapidly growing and highly virulent culture. After washing with distilled water for the removal of the remains of the culture fluid, they are dried in a vacuum dessicator. Next they are powdered in an agate mortar, and then extracted with sulphuric ether. This extraction removes the fats. They are again dried and powdered as before, and their further extraction takes place in sterilized distilled water over a warm bath with a temperature

of 120 F. The proteids becoming dissolved in the distilled water, the fluid is then decanted and filtered through porcelain, when finally the amount of proteids is determined and the preparation standardized to a certain per cent. The watery extract, as produced by me, and into which absolutely no culture fluid enters, is free from such admixtures and other impurities. It is a perfectly pure solution of the germs only, and being filtered through porcelain, is absolutely free from any germs or fragments thereof."

This solution is made of various strengths. Very minute doses are given at first daily by hypodermic injection. Very gradually these are increased, the object being in all cases to produce little or no fever. Should any occur the dose is diminished or stopped for a time, and then continued later on, in all cases avoiding perceptible reaction. The doses are gradually increased as long as required until immunity is produced and the disease arrested.

Of statistics furnished by Von Rue to prove the success of his method of specific treatment, the following is extracted from proofs now in the hands of the publisher :

COMPARATIVE TABLE OF RESULTS.

	Number of Cases.	Percentage of Recoveries.	Percentage of Improved.
Treated without specific remedies	816	12.1	31.0
“ with Koch’s tuberculin	379	35.5	37.5
“ with antiphtherin and tuberculo- cidin (Kleb’s)	182	32.5	56.8
“ with purified tuberculin (Von Rue)	166	43.4	39.2
“ with watery extract of tubercle bacilli (Von Rue)	303	56.1	33.7

I might add that a large number of reliable physicians, after pretty extensive trial, have endorsed this method of treatment. Among them are the names of Dr. Charles Dennison, of Denver, and Dr. Longstreet Taylor, of St. Paul.

One other matter, before closing. I had the pleasure of lunching with the patients who were well enough to appear in the dining-room. Von Rue and I occupied a table by ourselves at one end of the large room, my seat being situated so as to observe every patient present. There were about twenty-five of them, male and female about equally divided. The ages of most of them would be between twenty and thirty years, a few of them older.

Colored waiters in white coats attended. Each table was furnished with type-written bills-of-fare. The menu was well served, and would vie with any at the hotels in Asheville. The patients differed little in appearance from an ordinary

gathering of hotel guests, with good appetites and pleasant faces. A thing that struck me as singular was the fact that in all that large number there was not a single cough by any one of them during the whole of the dinner hour. On referring this matter to Von Ruc, he said that no one was allowed to come to the dining-room at all if he or she required to cough. In stages of the disease when coughing was an act of necessity the meals were always carried to the patient's room by attentive waiters.

CANCER OF THE UTERUS.

BY DR. C. WAGNER.

In the short paper which I have the honor to present to the Pathological Society to-night, I shall speak of some of the early and important changes in the mucous membrane in adenocarcinoma of the uterus, my remarks being based chiefly upon Thomas Cullen's book on Uterine Carcinoma. To illustrate many points, I have with me prepared sections of uterine scrapings, also sections of the uterus after removal, from a patient who came first under my father's care, later under that of Dr. Ross, having been sent to him for operation.

Cullen had the opportunity of examining and studying many cases of carcinoma of the uterus, and found that in both the squamous and adenomatous varieties there are changes in the mucous membrane early in the disease which are characteristic of carcinoma in this situation, and upon which in many cases a positive diagnosis may be safely made. From the surface of the mucous membrane, in a large proportion of both forms of carcinoma, spring finger-like or branching processes, which are the first to come away in the scraping, and which are very characteristic of cancer. Under the examining finger these processes break down readily and bleed freely. Together they form a cauliflower-like mass which cannot usually be seen unless the growth has commenced upon or extended to the vaginal portion of the cervix.

The microscope shows these finger-like or branching processes to consist of a small amount of stroma supporting comparatively large thin-walled vessels, and a covering of epithelium. In the case of squamous carcinoma the latter consists of an atypical squamous epithelium; in that of adeno-carcinoma there are several layers of epithelial cells, which are as a rule clearly not squamous in character. In the deeper layers columnar cells can usually be seen. The nuclei vary in size and shape and stain deeply. Here and there cells containing unusually large, deeply staining nuclei can frequently be found, and that cell proliferation is active is evidenced by the large number of karyokinetic figures.

In the glands of the normal uterus and on the surface of the mucous membrane above the external os, there is but one layer of epithelium. In adeno-carcinoma an epithelial covering several layers deep is quite a feature. This is not peculiar to carcinoma, however, but may be present in other conditions, for example, chronic endometritis.

Here and there throughout the stroma, small round cells and polymorpho-nuclear leucocytes are usually present.

The changes in the glands in adeno-carcinoma are quite as characteristic, but lying deeper they do not come away so frequently in the scrapings as do the processes. Great caution must, nevertheless, be observed in diagnosing cancer from the appearances of the glands alone, as there are conditions, benign in character, which roughly resemble the carcinomatous condition, but which can usually be distinguished from the latter by a critical eye.

In adeno-carcinoma the gland tissue is much increased in amount, and of an exceedingly irregular construction. The histological picture is that of many gland groups surrounded by stroma and unevenly separated from one another. This last feature must be constantly borne in mind in diagnosing from glandular hypertrophy.

The gland groups are composed of many alveoli, which are separated from each other by little or no stroma. In favorable specimens one may see that such a group is the result of the irregular branching and transformation of a single gland. Many of the lumina are partly bridged across by outgrowths from the epithelium, and that these outgrowths frequently bridge across completely, is stated by several observers.

The epithelium lining the glands is from one to many layers deep. The character of the individual cells varies much in different cases. They may differ little from normal epithelial cells, or may be extremely irregular in shape, size and staining properties, differing so much from normal gland epithelium that they cannot be determined histologically to have originated from such.

The stroma is fairly cellular, and is composed of spindle-celled connective tissue. Here and there throughout it are patches of small cell infiltration.

Adeno-carcinoma must be diagnosed from (1) Unusual thickening of the cylindrical epithelium on the surface and in the glands. (2) Erosions. (3) Polypi. (4) Submucous myomata. (5) Interstitial myomata. (6) Adeno-myomata. (7) Tuberculosis. (8) Squamous cell carcinoma. (9) Endothelioma. (10) Sarcoma. (11) Cases in which glands are normal, but in which there is considerable proliferation in the surrounding stroma. (12) Glandular hypertrophy. (13) Changes in the endometrium in pregnancy. (14) Endometritis. Also various other rare conditions.

CASE.—Miss S., aged about 55 years. Menopause about five years ago. Had a watery discharge from vagina all last summer. The discharge was sometimes slightly bloody. On the 29th of October she had a hemorrhage, and my father was called in. On examination, the os was found to be dilated and a mass of soft tissue could be felt within the cervix. This

latter broke down readily under the examining finger, accompanied by considerable hemorrhage. A tampon was introduced into the vagina and left for twenty-four hours. Six days later a digital examination was made, and the os was felt to be contracted. No more hemorrhage had occurred in the meantime. The tissue removed at the time of the hemorrhage was composed chiefly of long finger-like processes, with here and there nodules of blood clot. The projections were very soft and friable. The diagnosis of cancer was made from the clinical history and gross appearances, and this was confirmed by microscopic examination. On the 21st of November a vaginal hysterectomy was performed by Dr. Ross.

The uterus was opened immediately after the operation by an anterior longitudinal incision. The cervix was found to be much dilated, and from its walls in the region of the internal os and from the lower posterior portion of the cavity of the uterus, a mass of finger-like processes projected into the canal of the dilated cervix. Many of these processes were nearly an inch long, and of equal diameter throughout. They resembled exactly the processes removed in the scrapings. Higher up in the wall of the uterus was an interstitial myoma about one centimetre in diameter. On the mucous membrane of the cavity of the uterus, high up near the fundus, was a slightly raised area which was thought might be a secondary growth. On cutting into the cervical wall the outer border of the new growth could easily be seen at a depth of about three centimetres. Portions of tissue were taken from the cervix, from the myoma, and also from the area on the mucous membrane near the fundus and hardened for sectioning.

The sections of uterine scrapings show the characteristic processes, but no glands. The epithelium covering them is several layers deep. It is, I believe, clearly not squamous in character. Most of the cells are polygonal, but here and there they are columnar. In the centre of the processes are large, thin-walled vessels supported by a small amount of stroma. In the stroma can be seen, here and there, small numbers of small round cells.

The section of the cervical wall shows carcinomatous glands, and in one corner normal glands. The cancer cells are polygonal or columnar, very irregular in size, particularly in certain localities, stain faintly, and are arranged from one to many layers deep. Alveoli lie against each other, with no dividing stroma. There are no processes to be seen, these having been destroyed in the preparation.

The section of the small raised area on the mucous membrane of the fundus is not successful, as most of the membrane has been destroyed in sectioning. There are, however, one or two suspicious places.

In running over the differential diagnosis I spoke of cases in which the glands are normal, but in which there is marked proliferation of the stroma.

Dr. Primrose brought to the laboratory several weeks ago some scrapings which presented just such an appearance under the microscope. The stroma is exceedingly cellular in places, and might at first sight appear to be epithelial tissue, but the glands lie at equal distances from each other, and are perfectly normal. I have brought several sections of these scrapings with me. I do not know the history of this case, but in others of a similar character the patients have suffered from uterine hemorrhages, which were checked for several months by curetting.

REPORT OF AN OPERATION FOR JACKSONIAN EPILEPSY.*

BY DR. H. M. THOMAS.

I wish to relate the details of a case that was operated on to-day at the Hopkins Hospital, and which has been to me a most interesting case. The patient was a man aged 45, who lived in the country, and though complaining of epileptic attacks, had never consulted a physician. He had been a fairly healthy man, though never robust, had never used alcohol, did not smoke, and had never been exposed to venereal contagion. About fifteen years ago, in the spring of the year and towards the close of his day's work in the field, he suddenly became unable to speak and felt that his right hand was weak. He walked home, and for two or three days had great difficulty in speaking, and his hand felt numb. He continued his business though, of overseeing his farm. After several months he had a convulsion. He did consult a doctor at that time, was put upon bromides and recovered. About a year following the first attack, while in the field, his right leg became paralyzed and he had to be carried home. He recovered from the paralysis, but began to have peculiar attacks, at first infrequent, but within the last year, several a week. They come on him in one of two ways—first, losing the power of speech, then a twitching in the right side of the face, the hand becomes numb, and then the paralysis passes up the arm and down the leg; or second, it may begin with a twitching in the face, and the loss of speech comes later. He has

* Read at a meeting of the Clinical Society of Maryland, Baltimore, January 4th, 1901.

learned that by taking chloroform he can cut the attacks short. If allowed to persist, and a severe attack comes on, it lasts from a minute to a minute and a half without any loss of consciousness. He is very much upset by such an attack, and at times loses the knowledge of having a hand, that is, without looking at it he would not know that he had it. After the attack is over he cannot speak or use the hand for about half an hour.

Upon examination his cerebral nerves are found to be normal. There is no headache or pain, and the only paralysis is an impaired movement in the side of the face. He closes the eyes, lifts the eyebrows and both lids well, but cannot draw the mouth to the right side. The movements of the arm are perfect, though somewhat weak, and he has muscular atrophy of the first interosseous muscle. His grip is fairly strong, but not as strong as on the left side. He can use his right hand, but dislikes to do so, preferring to button his coat, etc., with his left hand. All the reflexes are exaggerated on both sides, but more so on the right.

The diagnosis of typical Jacksonian epilepsy is as clear as it could possibly be, and it seemed pretty clear that the lesion that produced it was a stationary one. We thought possibly there was some sort of vascular trouble that occurred fifteen years ago, but there was no etiologic factor in support of that explanation. Then we considered its being a stationary growth in the brain, and this appealed to me particularly because of a case which had lasted eight years before there was much paralysis, and in which we did not find a growth at the operation, but discovered it later by microscopic examination. The position of the lesion seemed pretty clear also, as the most objective symptom was the paralysis of the mouth.

In the last work of localization Dr. Halsted did on the brain of the orang-outang, he found an area in the ascending frontal convolution which governs that movement exactly. It was easy then to imagine a lesion in that vicinity that would account for the other symptoms also. We told the patient the nature of the trouble and the possibilities of finding it by operation. He was anxious to have the operation performed, and it was done to-day by Dr. Finney.

He made a large bone flap, exposing an area that showed the fissure of Rolando and part of the ascending parietal convolution, and gave us the area above referred to as the centre of the field. It required about twenty minutes to expose the brain, the bone being very thick, and nothing being found on the dura, we slit it up, but the cortex was perfectly free so far as we could see. The veins of the pia mater were a little congested, but that was all. I tried to stimulate the

cortex by the Faradic current, but failed, probably because the apparatus was not right, and partly because I was not willing to push the matter very far. He has recovered from the operation, in so far as coming out of ether is concerned.

The case is interesting, because in my experience I have never seen or read of a case that presented a more typical picture. That there is a lesion there is absolutely certain, but I think now it is certain that it is subcortical. If so, it may be a lesion corresponding to the tumor found in the case reported in the *Journal of Experimental Medicine* for 1897, Vol. 2. In that operation nothing was seen at all, and nothing was found at autopsy, so we thought there had been a mistaken diagnosis, but microscopic examination revealed a neuroglioma in the motor cortex.

Just one other point I want to bring up, and that is, that the muscular atrophy seen in this case is also present in the case we reported. Muscular atrophy of the character seen here does not occur usually with cerebral lesions, but it does occur at times, and seems to occur from some lesions either in or near the pyramidal tract, and causing an irritation of the tract without actual destruction.

I present this case as one of the illustrations of how very discouraging brain surgery is. We no longer operate for epilepsy as such, and the reason we operated here was that we believed there was a definite lesion that might be removed; it was only a chance, and that chance was not sufficient to do any good. I would not be surprised, however, if that patient goes along for a year without any convulsions. We often find that, for some reason or other, there is a cessation of convulsions after such an operation, possibly because of a change in the circulation. The last case of the kind I had operated upon has had no return of the trouble for nine months, and he thinks we are very unreasonable because we will not operate on his brain to remove his paralysis.

DISCUSSION.

Dr. Randolph Winslow: Why not take out the centre that governs this area?

Dr. Thomas: That has been done, but the trouble is that you leave a scar, and there is just as much reason to suppose that it will act as a focal lesion as that the original disease did.

Dr. A. L. Hodgdon: I think we are all very much indebted to Dr. Thomas for this report, as this is one of the forms of epilepsy that can be relieved or even cured if taken in its incipency. The great trouble in these cases is that they are not taken early enough, and after a while what is known as habit

epilepsy forms. We notice something similar to that in malarial paroxysms, where sometimes after the system is thoroughly rid of the organism we find the paroxysms or chills still continuing. I would like to ask Dr. Thomas if that portion of the second frontal convolution, where the head centre exists, was exposed at this operation to determine whether there was any lesion there; and again, whether it was considered that there might be any other lesion than a tumor present. I would like to know, too, if the attempt was made to stimulate the cortex with the galvanic current.

Dr. Robert Reuling: The case presents certain very interesting features, as Dr. Thomas has pointed out, and one of the main ones is the muscular atrophy. In a work recently published in Nothnagel's series one finds how very rare muscular atrophy is in connection with cerebral cases; only sixteen cases have so far been reported, I believe. Last year I had the pleasure of reporting a case to this society that showed very marked muscular atrophy with intracranial lesion, and the case was remarkable in that the atrophy was a very extreme one ten days after the onset of the disease. With this atrophy there was complete loss of sensation on the affected side. So far as I could tell from the course of the symptoms, I came to the conclusion that the lesion was in the posterior third of the internal capsule; physiologists have agreed now that this portion of the capsule contains the sensory fibres, while the anterior two-thirds contain the motor fibres, so that any lesion of the posterior third would cause a complete hemi-anesthesia, and it is just those cases with sensory disturbances that are associated with muscular atrophy. You remember that Dr. Thomas' case presented sensory disturbances, but I believe his case is more subcortical, and does not involve the internal capsule itself.

Dr. Thomas: It is not easy to know, when looking at a brain exposed for operation, just what convolutions you have exposed. In this case we believed we had exposed the fissure of Rolando just at its edge and a space of about two inches beyond that. We also passed a blunt director around it until we could see the other side of the fissure of Sylvius. No lesion was noted anywhere. All the centres above and anterior to the ascending frontal are very indefinite, and most of the centres for the head are in the ascending frontal convolution. I do not know any condition of the cortex that will respond to interrupted galvanism that will not respond to Faradism. I used a strong Faradic current, so strong that it was painful when applied to the tongue before the electrodes were sterilized. I would be glad to be informed about the galvanic stimulation of the cortex.

Selected Articles.

DIET OF TYPHOID FEVER.

By GEORGE DUFFIELD, M.D., DETROIT.

All authorities agree that the diet of typhoid fever should be carefully regulated; all food administered should be liquid, and should be given frequently and at stated intervals, at least as often as every three hours. Milk in some form is usually considered the best food; all authorities recommend its use, either plain, diluted with lime water, vichy, or other carbonated water in the proportion of 1 to 3 or 4 of milk. Or, if milk diluted in this way is not digested, then it may be pre-digested, or may be given as whey, buttermilk or kumyss. Many authors and clinical teachers prescribe milk as the only food for this fever, that runs a course of three to six weeks.

Does milk nourish the patient sufficiently? And to this question I answer, No. Is milk easily digested? And again I say, No. No physician who has ever cared for a case of typhoid fever and has made a daily inspection of the stools, will agree that the digestion of milk is ever completely performed and the perfect assimilation thereof is rare. Undigested flakes, and oftener heavy curds, are seen in the stools, which are loose and very offensive.

Acting upon a suggestion made in a discussion of typhoid fever a year ago, I have modified my plan in feeding typhoid cases, and the results have been most gratifying, after treating over twenty cases by this method.

In typhoid fever, as all will admit, the intestinal tube, from one end to the other, is irritated, congested and inflamed in a large part of its length, and yet, knowing this pathological condition, many—yes, most all—physicians advocate the putting of raw and solid food in this inflamed receptacle.

Most authors recommend milk as the only diet; but milk is a fluid only until it is swallowed. As soon as it reaches the stomach the milk-curdling ferment in the gastric juice makes a solid of it in from three to ten minutes, and the coagulum varies in degree of solidity, depending upon the strength of the ferment and the condition of the gastric juice. The coagulated casein passes as leathery curds into the intestine, which is in a more pathological state than the stomach, and the irritating action is marked along the whole length of the passage.

It is well known that in typhoid fever the juices of the intestine are much altered; that the bile and pancreatic juices

are diminished in amount; and right here, I believe, is a point where auto-intoxication begins, because of the presence of undigested food—milk, for instance, being poured into the intestine in a state of consolidation, acts as an irritant to the ulcerating Peyer's patches, decomposing more and more the farther it goes down the intestinal tube. These cheesy lumps are the culture medium for many forms of bacteria in the intestine, not to speak of the Eberth bacilli.

Where milk is the chief article of diet, and is continued throughout the fever, there is a continued and steady intoxication, resulting in a high fever curve, during the whole course of the disease, and I believe that it is largely due to this plan of feeding.

I think every general practitioner can remember cases in his practice where some slight error of eating, that has produced a slight dyspepsia; has caused the temperature, that has been sticking close to normal, to rise two or three degrees, and until the undigested food has been removed by a cathartic—one that will cause the bile to flow freer and so neutralize the poison generated by the decomposing food in the intestine—the temperature will continue to stay above normal. I have seen this happen frequently, when cases have been fed at the beginning on milk, and the temperature stands between 104° and 105°. I have seen a marked fall by the removing of milk from the diet, giving first laxative waters, and then substituting other foods.

Now, what will we substitute for milk? It is not hard to select a suitable diet nowadays. First and foremost come Liquid Peptinoids, Panopepton (strained), in which rice or barley has been cooked, may be made from beef, chicken or mutton.

Beef juice, prepared by broiling a piece of round, juicy steak until it is done rare, cutting it into strips and squeezing out the juice by means of a metal lemon squeezer (heated) into a heated cup, so that coagulation will not take place. This beef juice may be salted to taste, and will prove an excellent substitute for milk.

Eggnogs, milk slings and all foods containing milk should be tabooed in the feeding of typhoid cases.

Feeding should be as often as every three hours by day, every four hours by night. Distilled or sterile water should be given freely, whether the patient has thirst or not. Water not only allays thirst, but it supplies secretions for all glands of the body; it helps in the elimination of waste products by the way of the kidneys, and it greatly aids free evacuations of the bowels, besides supplying the wasting tissue with sustenance. It should be given at stated intervals, and not at the same time when food is administered.

As to the amount of food to give, of Liquid Peptinoids and Panopepton, a tablespoonful or two may be given at a feeding; broths, 6 or 8 ounces; water, *ad lib.*, or 6 or 8 ounces every two hours, or one and a half to two quarts in 24 hours, if possible.

Instead of alcohol—unless the cases become adynamic—I prefer sweetened coffee—without cream or milk; as a stimulant nothing is better; its effect lasts six or eight hours, while the effect of alcohol passes off in a very short time. The sugar itself is nutritious, and adds and conserves the strength of the patient. Sugar, like starch, is fattening. Cane sugar is much more readily digested than starch, the change taking place in the stomach, while the digestion of the latter takes place in the intestine. The main function of sugar, as found in the blood, is believed to be the production of heat and energy. Less force is required for the digestion of sugar than of starch; hence it is evident that cane sugar is to be preferred to starch or foods containing starch.

What do we gain by this plan of feeding?

First—The patients lose little of their weight.

Second—There is no bloating or tympanitis.

Third—The secretions and excretions remain nearly normal throughout the whole attack.

Fourth—Patients do not become emaciated, as they do when on a milk diet.

Fifth—The tongue remains moist and quite clear.

Sixth—The fever is reduced rapidly and keeps low.

Seventh—The strength is conserved and the patients are able to turn themselves in bed without assistance, during whole attack.

Eighth—The mind remains clear, and there is no delirium.

—*The Leucocyte.*

SEXUAL NEURASTHENIA.

By D. J. McCARTHY, M.D.

Associate in Medicine, Wm. Pepper Clinical Laboratory, University of Pennsylvania

Sexual neurasthenia is a fatigue neurosis, either the result of sexual excess or sexual abuse, or a neurosis dependent on physical or psychical deterioration which is traced in the mind of the patient to some fancied or real perversion or abuse of the sexual function. A large percentage of the cases of sexual neurasthenia coming under the care of the nerve specialist are engrafted on a defective, unstable nervous system. It is, indeed, this defective psychic make-up of such individuals, this lack of

mental equilibrium and inhibitory power which leads to the reckless abuse of the normal sexual function, or the more common perversion of it, excessive masturbation. It is therefore easy to understand how the continued drain on these generative organs leads to a depression in the general physical tone, and secondarily to the worry and introspection which is almost always associated with it.

A normal, healthy body will stand a great deal of sexual drain, provided it be unassociated with worry and mental strain; but just so soon as these elements are added, the loss of flesh and strength and tone rapidly takes place, and by counteracting on each other lead to the physical and mental wrecks we see in the terminal sexual neurasthenic. Given an individual addicted to any of these abuses of the organism, one can almost predict the course of the disease. In the normal sexual act, a lessening of the sexual appetite or vigor, or in the perverted forms an accidental discharge of seminal or prostatic fluid, or perhaps a sequence of nocturnal emissions, is the starting point of the introspection which persists and grows as long as the disease lasts. These accidents will naturally occur when the effects of the sexual drain have become manifest on the physical being; the excessive tissue waste having been thoroughly inaugurated before the mental strain has developed.

The average individual, if the will power be sufficiently strong, will now avoid his primary error, only to find that the over-active glands, in their efforts to get rid of a surplus secretion, have produced nocturnal emissions, involuntary seminal discharges, etc., which to him are retribution for his past sins, and add fuel to the smouldering fire which now bursts forth into flame. The mind, during every spare moment, is directed to the sexual apparatus, only to find a new symptom at each turn. His active life and exercise is dispensed with, that he may brood over his misfortune, and try all the patent nostrums for the return of his lost manhood. The muscles become flabby and weak. The liver, in its turn, fails to take care of the added work, and constipation, with anorexia and nervous dyspepsia, completes the wreck so easily begun. In the meantime he has exhausted all the patent nostrums for the relief of his disease, only to find that the temporary improvement due to the mental impression rapidly disappears, leaving him worse off than when he began.

The advertising doctor is next given a trial, with the same result, and finally, without mind or body or occupation or money, he turns to the nervous dispensary, to find many kindred spirits, when he thought he must be the only one so sorely afflicted.

The patient is usually depressed, with sallow, unhealthy skin,

dilated pupils, flabby muscles, very restless and irritable; and with all the pains and aches and diseases he has ever heard detailed. Headache and backache and tremor are usually present. Lack of concentration of thought which the patient thinks is loss of memory and "giving way of the mind" is characteristic. Slight muscular effort produces fatigue, and an accentuation of the other symptoms. The reflexes are exaggerated, the urine is scanty and throws down a heavy precipitate of phosphates, and not infrequently contains spermatozoa and semen crystals. Constipation is almost invariably present, and a flabby, coated tongue and fetid breath are the external evidences of the perverted digestive functions. Indeed, there are but few, if any, of the bodily tissues performing a strictly normal function in the terminal cases of sexual neurasthenia. The clinical picture of the "essential neurasthenic," a neurasthenia due to mental strain, overwork, etc., etc., does not differ essentially from that given above. Neurasthenia, independent of its cause, follows a distinct clinical type, the course and prognosis depending, of course, on the ease with which the previous errors are abandoned and the disposition of the tissues to regain their normal function. Sexual neurasthenia is more prone, I think, to result in a complete loss of the mental equilibrium (sexual insanity) than the other forms of neurasthenia. This is especially true if the neurasthenic comes from an insane stock. The proportion of cases with this termination is very small indeed.

The treatment of sexual neurasthenia does not differ materially from that of the other forms of neurasthenia. A general elevation of the tone of the entire system, and with it of the exhausted nervous system, is necessary, and best attained by a thorough systematic course of rest treatment in a private hospital or sanitarium. The daily visit of the physician, with the encouragement and reinforcement of the increments of moral tone which comes with the correction of the vicious errors in metabolism, are as necessary as the treatment of the physical being. The bromids, hyoscin, etc., may at first be necessary to control the sexual hyperesthesia, but should be dispensed with as early as possible. Local treatment is usually unsatisfactory, as it tends to keep the patient's mind on the sexual organs, when it should be directed into more normal channels.—*International Medical Magazine*.

Progress of Medical Science.

MEDICINE.

IN CHARGE OF W. H. B. AIKINS, J. FERGUSON, T. M. McMAHON, H. J. HAMILTON,
AND INGERSOLL OLMSTED.

Endocarditis of the Pulmonary Orifice.

A woman, aged 28 years, came into the hospital suffering from acute articular rheumatism, which yielded to salicylate of soda. Three days after the disappearance of the pains and the fall of the temperature, there set in symptoms of general infection. There occurred severe intermittent paroxysms, preceded by a violent chill and followed by profuse sweats at times in the morning, at other times in the evening; cardiac phenomena revealing the development of an endocarditis of the orifice of the pulmonary artery. The diagnosis of infective endocarditis of the pulmonary orifice, pyemic in form, was confirmed by the autopsy. The bacteriological examination revealed varieties of bacilli. One is a pyocyanic bacillus with its typical characteristics. The other three varieties are very similar, and a very close examination is required to distinguish the one from the others.—Translated from *Giornale Internazionale delle Scienze Mediche*, by HARLEY SMITH.

A Septicemic Form of Typhoid Fever Observed in Two Women Recently Confined.

In less than a year, de Grandmaison has had occasion to observe, in the clinic of Dr. Ribemont-Dessaignes, two women, who, after having been confined, one prematurely, the other at term, succumbed, after having shown, during life, the bacillus of Eberth in the blood. In these two cases, besides the presence of the bacillus in the blood, the thermic curve was irregular; the rose-spots were not present; the spleen was not enlarged. The two patients presented the clinical course of a true septicemia. De Grandmaison concludes that in women recently confined, suffering from typhoid fever, the birth creates, through the uterine wound, a way of entrance by which the bacillus of Eberth can get into the circulatory current. It then gives rise to a clinical variety which we may call "Septicemic form of typhoid fever in women recently confined."—Translated from *Giornale Internazionale delle Scienze Mediche*, by HARLEY SMITH.

Diphtheritic Paralysis ; Apnea ; Artificial Respiration ; Cure.

Ebstein (*Deutsche Med. Woch.*) reports *in extenso* the case of a child, ten years of age, who was admitted into the medical clinic at Göttingen on account of paralysis of the palate and tongue, and paresis of the vocal cords five weeks after undergoing a severe attack of diphtheria (which had been treated without antitoxin injections). Almost seven weeks after the onset of the disease the child, who that morning had complained of general lassitude, was suddenly taken with the most violent dyspnea, which soon turned into complete apnea. Artificial respiration was resorted to for five hours, by which time the symptoms improved. Other similar spells occurred at various intervals during a whole week, and required persistent use of artificial respiration extending over periods of ten and a half, thirty-four, eight, and nine hours respectively. The first impulse, of course, had been to ascribe this apneic condition to the presence of accumulated mucus, but such was not the case; nor could a limited focus of pneumonia at the right base, nor the concomitant mild bronchitis, account for the respiratory trouble. Ebstein holds that a pathological toxin influencing the respiratory centres was the probable cause of the trouble, but is uncertain whether it originated from the long-past diphtheritic infection or the present pneumonic affection. At any rate, the little patient's life was saved by the faithful and persistent use of Sylvester's method.—*The Medical Age*.

Larger Dosage of Anti-toxin.

A recent paper by McCollom, based upon an observation of nearly 8,000 cases, calls attention to certain points which have hitherto received too little attention.

Physicians have heretofore been too cautious in the administration of this remedy, and there are many to-day who would consider 3,000 units a large, and in all cases, a sufficient dose. Observation and experiment, however, have shown that as regards the amount to be used there is almost no limit, the sole aim and indication being to antagonize the diphtheritic poison existing in the system. As to its amount and character in a given case we have no means of deciding, and it becomes necessary to use our remedy freely and without regard to quantity or interval. The numerous reported cases in which from 50,000 to 80,000 units were administered during the course of the sickness—usually with favorable results and with no untoward effects, so far as the serum was concerned, should establish beyond reasonable doubt the innocuousness of the remedy. Another point which the author insists upon, is the prompt administration of antitoxin and before the poison has been

elaborated and disseminated throughout the system. The literature at hand shows that cases thus treated within the first 24 or 48 hours of the disease, recover more promptly and under a much less dosage than those in which the attending physician has hesitated or when the ordinary treatment has proved unavailing.

It is most unfortunate—that a remedy so valuable and in fact necessary, should often be denied the masses on account of its exorbitant price. The price of, say, 20,000 units, is in many cases prohibitive, and it may happen that the case which needs it most may fail to secure the same, unless the attending physician is disposed to cast his bread upon the waters without any very well defined hope that it will return after many days.

It will be difficult to estimate the true value of antitoxin until we are enabled to use it without restriction as regards both the amount and the cost.—*New England Medical Monthly.*

Syphilis and Paresis.

An abstract in the *Quarterly Journal of Inebriety* gives the following significant passage from a paper by Dr. Williams:

Practically 75 per cent. of all cases of general paralysis exhibit proof of primarily syphilitic infection. The history of all cases is the "typical man of the world"—ambitious, fond of society and high living, a light sleeper and a heavy drinker; then come delusions and well-marked paresis. Four cases were noted where syphilitic teeth were prominent, although no history of syphilis could be obtained. Each one had used spirits freely. The pathologic conditions in chronic inebriety, syphilis and paresis are alike. The thickened membrane and meningeal changes are the same. The neurosis which predisposes to insanity, paresis or inebriety may be of syphilitic origin. A history of using alcohol exists in all cases of paresis, and it is significant of contributing causes not yet studied.—*American Medico-Surgical Bulletin.*

Nature of Infection: Contribution to the Knowledge of the Bacterium Coli.—By DR. RADZIEVSKY. (*Zeits. f. Hyg. u. Injkh.*)

These papers deal with the subject of the methods by which pathogenic bacteria produce their injurious effects in the animal organism. It has been generally assumed in recent years that as the bacteria grow they produce, either as secretions or as bi-products of decomposition, certain toxic poisons which act directly upon the animal to produce the pathological symptoms. It has been held by some that in reality the toxic products are rather the result of death and destruction of the bacteria than

of their active growth. In a long series of experiments, described more in detail in the second of the above papers, Radziewsky has endeavored to investigate this question. His most important conclusions are: 1. That a fatal infectious disease is to be divided into two stages. In the first stage the pathological effects are the results of the active multiplication of the bacteria. In the second stage, however, there begins a destruction of the micro-organisms, and the pathological effects upon the animal are produced by the toxic bodies arising from their destruction. 2. The animal that is invaded develops the power of killing and destroying the invading organisms. This power is due to materials present in the body fluids which are derived primarily from the living cells. The destruction of the bacteria takes place partly within the leucocytes, but chiefly outside of the cell bodies in the body fluids.—*Post-Graduate*.

Antitoxin Treatment of Tetanus.

As a result of a careful study of this subject, Moschowitz (*Annals of Surgery*), appends the following *résumé* to his paper:

All forms of tetanus are caused by the bacillus of Nicolaier; hence the diagnosis rheumatic or idiopathic should have no room in our nosology.

The tetanus toxins appear to have a distinct affinity for the anterior horns of the spinal cord, which may be distinctly recognized by Nissl's method of staining. The cerebrospinal fluid of tetanus patients is more toxic than the blood.

The antitoxin therapy appears to have a distinct beneficial influence upon the course of tetanus.

With the antitoxin treatment the mortality percentage has been reduced from about ninety to forty per cent.

Although the use of the serum is a most important factor in the treatment of tetanus, the other recognized therapeutic measures should not be neglected.—*Therapeutic Gazette*.

THERAPEUTICS.

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

Nitrate of Potassium as an Antidote for Snake-bites.

Howard cites cases of persons bitten by rattlesnakes, whom he had cured by the following method: The patient is given, as soon as possible, enormous doses ($\frac{1}{2}$ ounce) of saltpetre, or potassium nitrate, dissolved in water. Wet potassium nitrate is also applied locally. Patients so treated have been known

to continue their work and suffer no inconvenience from the bite, while in the cases where considerable swelling has occurred before the treatment could be administered, rapid amelioration of all the symptoms at once occurred, proceeding to cure within twenty-four hours.—*International Medical Magazine*.

Sore Nipples.

The nipple should be cleaned with a little water, to which has been added a small amount of borax, then apply the following:

℞ Balsam of Peru.
Tr. of arnica, of each, ℥ ss.
Ol. amygdal. dulcis.
Aqua calcis, of each, ℥ ss.

M. Sig.: Shake well and apply to nipple with camel's-hair brush.—*Medical Summary*.

Bismuth Subgallate in Gonorrhœa.

Dr. Dokerchaieff states that he has had brilliant results from the use of bismuth subgallate in both acute and chronic cases.

In the acute cases he first washes out the urethra with a boric-acid solution or a 2 per cent. solution of potassium permanganate. Then he injects the following:

℞ Bismuthi subgallati,
Pulveris acaciæ, of each, ℥ ij.
Aquæ destil., ℥ iij.

M. Sig.: Use as an injection every two hours and retain the liquid each time for five minutes, and allow it to escape drop by drop.

In the chronic cases the urethra is well irrigated and a bougie made up as follows is introduced:

℞ Bismuthi subgallati, gr. xx.
Wool-fat, ℥ iiss.
Cerae albæ (white wax), ℥ ss.

M. Sig.: Insert and lightly massage the penis to bring the mucous membrane in contact with the bougie.—*Journal of the American Medical Association*.

Treatment of Prostatic Tuberculosis.

(Sarda, Toulouse, *Archiv. provincial de Chirurg.*) In treating prostatic tuberculosis by local medication there is little success. Often surgical treatment is not desirable. It is best to incise the perineum in front of the rectum deeply, and then

urette. If an abscess points in the perineum, an incision one finger's breadth anterior to the anus should be made. In tuberculosis of prostate without abscess formation, it is desirable to establish a perineal fistula. If a fistula exists, it should be extended into the prostate. In performing prostatectomy, especially if the seminal vesicles are not to be removed the long incision is recommended.—*The Med. Fortnightly*.

Urotropin in the Treatment of Cystitis.

(Goldberg, *Centralbl. f. mer. Med.*) Sixty cases of cystitis were treated by the writer with urotropin; some were gonorrhoeic and primary cystitis, whilst others were secondary to hypertrophied prostate, disease of central nervous system, stricture, tuberculosis, dilated bladder and nephritis. He maintains that the efficiency of urotropin is independent of the reaction of the urine, and varies very much with the kind of cystitis. In secondary cystitis urotropin cannot *per se*, without treating at the same time the local cause. In infection following secondary cystitis, or in primary urethral infection, urotropin is useless. Goldberg disagrees with Nicolaiers and Groszlikis; the former claiming that this medicament can be used in many ways in treating urinary disorders, the latter agreeing with the former.

Chronic Bronchitis.

In the majority of cases the derivatives of tar, turpentine and balsams are the most efficient expectorants. They are specially indicated in relaxed conditions of the mucous membranes, with excessive secretion, in combination as follows:

℞ Ol. terebinthinæ,
Picis liq., aa *m* 20.
Ol. eucalypti, *m* 50.
Bals. tolutani, ℥ 1½.
Benzosol, ℥ 4.

M. et disp. in caps. No. 60. Sig. One four or five times a day.—*Butler, Med. Standard*.

Ulcers.

℞ Bromol, gr. xv.
Vaselini, ℥ j.

M. Sig. Use as a local application.

Bromol is obtained by pouring an aqueous solution of bromin in an aqueous solution of phenol; a white, clear precipitate results. The crystals are insoluble in water, but very soluble in alcohol and in fatty and volatile oils.—*Phil. Med. Jour.*

OPHTHALMOLOGY AND OTOTOLOGY.

IN CHARGE OF G. STERLING RYERSON, J. T. DUNCAN AND J. O. ORR.

The Earliest Symptoms of Locomotor Ataxia.

C. O. Hawthorne (*Brit. Med. Jour.*) refers to the fact that this disease may show several ocular symptoms, such as the Argyll-Robertson pupil, ocular paralysis, and optic nerve atrophy. He states that a step forward in our knowledge of the disease has been the recognition of the fact that ocular disturbances may precede the evidences of any special lesion. Primary optic atrophy has been known to precede the special symptoms for several years; and it is not unreasonable to presume that the Argyll-Robertson pupil and an ocular paralysis may each have the same chronological relation. If any two of these eye symptoms are associated together, there is an increased likelihood that the diseased process (even in the entire absence of special symptoms) is of the locomotor ataxia order. Hawthorne presents a series of thirty cases which, he considers, support his conclusions. These cases point to the fact that affections of the eye are often the earliest symptoms of locomotor ataxia.

Recent Methods of Treatment for Trachoma (Granular Lids).

Hans Adler (*Weiner, Medizin, Presse*) says trachoma is undoubtedly of bacterial origin, although the bacillus has not yet been isolated. Passing over his remarks upon preventive treatment, the author divides the treatment into three groups—1, medical; 2, mechanical; 3, operative.

1. *Medical Treatment.*—He mentions here carbolic acid 2 per cent, ichthyol, pyoktanin, iodoform, creolin B, naphthol, resorcin, but favors corrosive sublimate 1-5000 to 1-1000 as the most effective.

2. *Mechanical Treatment.*—Rubbing the conjunctiva with a swab saturated with corrosive sublimate solution 1-7000 is often effective. The treatment by galvano-cautery is also favorably spoken of. Under cocaine the operation is almost painless, and can be done without an assistant. The after treatment with copper is very efficient.

3. *Surgical Treatment.*—Excision is mentioned, the use of Schroeder's metal brush, and the bristle brush of Abadie. But the squeezing of the granules out by Knapp's roller forceps is spoken of as one of the best methods.

After mentioning all these remedies, Adler concludes by speaking of the old remedy, *lapis divinus* (made by fusing together 32 parts each of copper sulphate, potassium nitrate, and alum; then adding to the mixture 2 parts each of camphor and alum), as one of the most important means of treatment, especially if used early.

The Treatment of Burns of the Eye.

W. Campbell Posey (*Ther. Gazette, Dec., 1900*) says that burns of the eye are always serious (even if apparently slight) and demand prompt treatment. The prognosis will depend largely upon the amount of damage which the cornea has suffered. When only the epithelium is affected, a restoration of transparency may be hoped for, but when the corneal tissue has become completely esclerotic, nothing to improve vision can be hoped for, unless a rim of uninvolved cornea may exist, when an iridectomy may be useful.

Lime Burns.—The most frequent burn of the eye is that from lime, and this is the most destructive agent that can be brought into contact with the surface of the eye. When un-slaked lime, even in the smallest quantity, is permitted to remain in the eye, it acts as a most powerful irritant. In larger quantity, it may cause sloughing, and loss of the eye.

Treatment.—At once evert the lids and cleanse every part with oil, for this substance prevents further slaking of the lime. If no oil is at hand, a diluted solution of vinegar should be used freely. If neither oil nor vinegar can be had, wash the parts rapidly and thoroughly with water. Fuchs recommends dropping a concentrated solution of sugar into the eye, since cane sugar forms an insoluble compound with lime.

After the eye has been thoroughly flushed, any solid particles should be removed with a pledget of cotton, and boracic acid lotion (gr. x. ad f. ℥ i). Iced compresses, constantly applied until the inflammatory reaction has subsided, are useful. As the iris is likely to be involved, a solution of atropine (gr. iv. at f. ℥ i) should be dropped into the eye. Cocaine or a subcutaneous injection of morphine may be used if there is much pain. Subsequently, protection of the eye, with the use of olive or castor oil dropped into it, will best promote the healing process.

Acids—At times, volatile acids are thrown into the eyes by some malicious person. In such cases the eyes are almost always hopelessly lost.

Treatment.—A stream of tepid water or a solution of bicarbonate of soda or of potash (gr. iv. ad f. ℥ i), injected over the whole surface of the conjunctiva at once, is to be used. The after treatment is the same as for lime burns.

Burns by Gunpowder.—The difficulty here is to get out the powder grains. The eye must be thoroughly cocainized, and each grain picked out by a cataract needle.

As the tendency of severe injuries to the eye is to produce great prostration, it is necessary that the patient should be kept quiet in bed, and that a supportive treatment should be inaugurated.

J. T. D.

Editorials.

THE LAST ILLNESS OF THE QUEEN.

We have taken the following particulars, concerning the last illness of Queen Victoria, chiefly from the "authoritative account" published in the *British Medical Journal* of January 26th.

The Queen's health had been failing for about twelve months—the symptoms being mainly dyspeptic, with impaired nutrition and insomnia. The thoracic and abdominal organs showed no sign of disease. The dyspepsia was especially marked during her last visit to Balmoral, where she first showed signs of brain fatigue and lost notably in weight. These symptoms continued at Windsor, where, in November and December, slight aphasic symptoms, unattended by any motor paralysis, were first observed.

The Queen suffered unusual fatigue during the journey to Osborne, December 18th, showing symptoms of nervous agitation and restlessness which lasted for two days. After this she improved for a time until January 16th, when symptoms of cerebral exhaustion appeared. On the following day cerebral symptoms were more marked. There was considerable drowsiness and a slight flattening on the right side of the face. From this time partial aphasia and facial paresis were permanent. On the next day the Queen was a little brighter, but on the following day, January 19th, the graver symptoms reappeared and continued with remissions until the end. The heart's action was steadily maintained, the pulse at times evincing increased tension, but being always regular and of normal frequency. The temperature was normal throughout. In the last few hours of life paresis of the pulmonary nerves set in, the heart beating steadily to the end. Beyond the slight facial flattening there was no motor paralysis, and the mind was seldom clouded. Within a few moments of death the Queen recognized the several members of her family.

THE MEDICAL SERVICES AT THE QUEEN'S FUNERAL.

We were under the impression that the medical services had some official status in England, therefore it was that we experienced something like a shock on reading the following in the *British Medical Journal* of February 9th :

“ We understand that no officers of the Royal Army Medical Corps, except those with the men, were told off to take part in the Queen's funeral procession. The Director-General of the Army Medical Service had no place in the procession, although the heads of the other departments, for instance the Inspector-General of Ordnance, the Inspector-General of Fortification and some others were assigned places. Moreover Honorary Physicians and Surgeons to the Queen, who rank as Majors-General, were not given places, while A.D.C.'s to the Queen, who are colonels, took part in it. Is it possible that the services of the medical officers during the war in South Africa are forgotten already? Or has the precedent of the Wolseley-Buller administration, so hostile to our brothers in the army, been followed? We look for better things of Lord Roberts, who, if rumor speaks truly, has no reason to thank the Wolseleyites, and of whose kindness of heart and interest in medical affairs we have heard much. Let us hope that when the Coronation occurs the head of the Medical Service, as representing not merely the army, but the profession, will receive the honor due to his position.

DOMINION MEDICAL ASSOCIATION.

We are glad to learn from the president-elect of the Dominion Medical Association, Dr. H. H. Chown, of Winnipeg, that our medical friends in Manitoba are very enthusiastic about the meeting which is to be held this year in Winnipeg. Dr. Chown went from Winnipeg to Ottawa to attend the tuberculosis conference, held February 17th and 18th. After the Ottawa meeting, he went to Montreal to see some of the authorities of the Canadian Pacific Railway, with the object of getting the lowest

possible rates for members from the Eastern Provinces who will attend the meeting.

Dr. Chown was assured that the Company would be as liberal as possible, and will give return tickets for a single rate, or, perhaps, less. In addition, the members may go from Winnipeg to any part of Manitoba or the North-West and return for a single rate. Dr. Chown is also making arrangements for a trip to the Pacific Coast and return, for which the rate will be much less than the ordinary single fare. Physicians who expect to attend the meetings, which will be held during the last three days of August, are requested to communicate with the General Secretary, Dr. F. N. G. Starr, of Toronto, who will soon be able to furnish more definite information as to the preparations that have been made by the Local Committee of Arrangements. After leaving Montreal, Dr. Chown came to Toronto and received many assurances that the profession of this city and vicinity would appear in full force at the meeting. The genial President, who, in addition to being as able as he is popular, happens to be an indefatigable worker, and we feel certain that his personal influence alone will do much to make the meeting a pronounced success.

BILL FOR THE TREATMENT OF INEBRIATES.

In the January number of *THE PRACTITIONER* we gave an abstract of the proposed bill for the treatment of inebriates, as well as some extracts regarding the Massachusetts system of probation for drunkards, the system upon which the proposed bill is based. This bill has been under the consideration of the Ontario Government for over twelve months, while the necessity for making provision for this unfortunate class was impressed upon the Ontario Government by a deputation from the Ontario Medical Association as far back as 1894. It was hoped that this bill would have been introduced last session, as it was drafted at the request of the Premier and Provincial Secretary, and was understood to meet with the approval of the Government, and especially as it had been endorsed by the Public Health Committee of the Ontario Medical Association, and by a number of other public bodies, as well as by medical

members of the Legislature. It was a decided disappointment that the Government did not see its way to bring down the bill last session. It was, of course, taken for granted that not having introduced the bill last year, there would be no question about its introduction during the present session. We regret to say that we have no guarantee that this will be done. During an interview a few weeks ago the Hon. J. R. Stratton, Provincial Secretary, stated to a deputation that although the bill met with the approval of members of the Government, the medical members of the "House" and of the Inspectors of Prisons, as well as of the Warden of the Central Prison, nevertheless he could not promise that the bill will be brought down this session.

We are at a loss to account for this tardiness on the part of the Government, in dealing with a question so closely connected with the well-being of the Province, on any other ground than that the importance of the subject has not yet so taken hold of the public mind as to make itself felt to be one of the pressing needs to be dealt with by the Government; and we would ask each individual member of the profession to consider his responsibility towards many who need his helping hand, and to make it his business to bring the matter before his representative in the Ontario Legislature.

As long ago as 1890 the Prison Reform Commission, appointed by the Ontario Government, recommended that provision be made by the Government for the efficient treatment of inebriates. Almost every year since then the attention of the Government has been called to the importance of the question, and of the crying need for action on the part of the Government. It might be supposed by some that the medical profession of the Province, through the Public Health Committee of the Ontario Medical Association, has discharged its obligations in the matter. This committee, to our personal knowledge, has pressed this question upon the Government four times within less than two years. As, however, these efforts have been apparently barren of results, possibly better results would have been attained had the Government been approached indirectly through the constituencies by members of the profession bringing their individual influence to bear upon their representatives in the Local Legislature. This may yet be

done, and if it be done promptly we would not be surprised if the bill should go through before the close of this session.

If we as medical men and as voters can move members of the Legislature, and if members of the Legislature can move the Government, we would surely be most remiss if we did not bring this influence to bear on behalf of this beneficent bill—a bill that promises so much in the way of restoring to useful citizenship hundreds of our unfortunate brethren throughout the Province, many of whom are not only going to destruction themselves but are also dragging down others and involving them in pauperism, vice and crime.

This bill has been printed and copies may be obtained on application by post card or otherwise to the Editor of *THE PRACTITIONER*, or to Dr. A. M. Rosebrugh, Confederation Life Building, Toronto.

THE CANADA ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS.

That the scientific facts first discovered by Koch in 1882, and which have since become a part of the common faith of physicians regarding the bacterial origin of tuberculosis, its infrequent transmission by heredity, and its curability in a notable percentage of cases, have gradually taken hold of the public mind, was unmistakably illustrated by the conference held on February 14th, in Ottawa, at the invitation of His Excellency, Lord Minto. The profession, as usual the leaders in every sanitary movement, had, in September, 1900, accepted with enthusiasm the idea of an association for fighting tuberculosis, made at the annual meeting of the Canada Medical Association. To give this Association permanent organization was the work of the recent conference. It was not thought desirable by the provisional officers, and executive then appointed, to attempt any lengthy series of papers and discussions, but rather to set forth broadly before the general and professional public the present position of scientific and public thought with regard to the great mortality caused by the disease, and the duty of the Governments, municipalities and public in relation thereto. Thus the first resolution discussed read as follows:

WHEREAS, In view of the general prevalence of tuberculosis in Canada, and of the very high mortality caused by this disease; in consequence of the communicable nature of the disease, and of the constant and continued dangers caused by its chronic and usually prolonged course, during which a patient may infect not only one house, but many other places of temporary or permanent abode; and especially on account of scientific facts going to show the curability as well as the moderately contagious character of the disease in its early stages,

Resolved, That in the opinion of this conference, which represents the Governments and people of every part of Canada, it is the duty of every Government, municipality and individual citizen to adopt organized methods for lessening and preventing the spread of a disease which is causing directly and indirectly at least one-fifth of the total deaths in Canada.

This resolution was introduced in an eloquent address by Sir William Hingston. Previous to this, however, His Excellency had, in a few gracious words, invited the members to the work, and clearly set forth in admirable terms the occasion of their being called together, and the duty of the hour.

The scope of the resolution gave opportunities for a general discussion, which was entered upon by delegates from the far East and still farther West. It was most inspiring to think that over one hundred of the leaders of scientific, social and political thought could so naturally come together, and filled with one common thought create an enthusiasm for a struggle against the insidious foe which, greater than plague and small-pox, has seized upon the aborigines, introduced to a civilization of doubtful advantage and like a canker is eating at the vitals of our industrial communities, and adding to our high-pressure life, pregnant with its neurasthenias and anemias, a danger from which in Canada our rugged and rustic forefathers were largely free.

The second resolution was introduced in an able speech by Dr. Roddick, and read as follows:

WHEREAS, The British North America Act places the duty of legislating, in the matter of municipal health matters, upon the various Provinces of Canada,

Resolved, That this conference does especially urge upon those Governments the enactment of such legislation as will,

(a) Tend to prevent the spread of infection through expectorating in public buildings and conveyances,

(b) Extend the inspection of places where work-people assemble, with a view to improving their ventilation, lighting and general sanitation.

(c) Aid in providing some scheme, such as that placed in the Statutes of Ontario in 1900, whereby organized efforts of the people may be assisted by governmental and municipal aid in providing sanatoria or "Homes," where the curable may be given an opportunity to recover, and the advanced cases cared for with comfort to themselves and with freedom of danger to those in the homes to which they belong.

This presented the subject in its practical aspects, as related to the duties of the provincial and municipal authorities in executing the laws and exercising the powers vested in them.

The scope of the work to be done and its bearing upon the complicated machinery of our modern society were admirably set forth, while it was very properly urged that such steps as are provided for in the Sanatorium Act of the Ontario Legislature be taken up by other provinces and territories.

The third resolution was that :

WHEREAS, The Constitution of the Dominion of Canada especially delegates to the Federal Government general quarantine in matters of the public health, both of men and animals, as well as matters of statistics; and in view of the fact that in tuberculosis we are dealing with a disease which not only lessens national prosperity through the loss of lives, but also by enormous expenditures through sickness and loss of labor,

Resolved, That it is the view of this conference that in a disease whose influence extends from questions of the inspection of immigrants to that of imported cattle, and affects the output of our farms and our factories, the Federal Government may greatly assist in the fight against tuberculosis by,

(a) Preventing the entrance to the country of tuberculized immigrants, and tuberculized cattle,

(b) Arranging with the Registrars-General of the Provinces for a system of Federal health statistics of deaths,

(c) Establishing a sanatorium in each of several typical Canadian climates, where under careful medical supervision the therapeutic effects of dry or moist, high or low, forest or prairie climates may be scientifically studied, and the results published for the information of the general public,

(d) Arranging with the railway companies to provide special facilities, both as regards conveyances and rates, for the transportation of tuberculized patients to such sanatoria.

This indicated with accuracy the part which the Dominion authorities, by virtue of the Constitution, may be expected to play in this truly national undertaking. In the work of harmonizing the functions of government in a country which has added one newly settled territory after another, it was perhaps to be expected that the political and more purely utilitarian phases of government should have hitherto been the principal concern of our Federal authorities; but it is yearly becoming apparent that as in the federated German States, scientific work has come to play the most important part in the problem of building up a nation and raising it to the highest plane of social, political, and commercial importance. With us in Canada, whilst we are bending our energies to establish agricultural colonies here and there throughout the land, it is not less plain that it is of equal importance to protect and nourish our own naturally virile population.

Having expressed its approval of the scheme for establishing a national association, the conference took up the work of adopting the proposed constitution and of electing officers. With the end in view of keeping in touch with both the profession and the public, two secretaries were appointed, Dr. Richer, of Montreal, who has had much experience in the work of sanatoria, and is an enthusiast in this work of prevention, and the Organizing Secretary, Rev. Dr. C. S. Eby, who has for a year devoted himself with much self-sacrifice to the advancement of the work represented in the *Toronto branch of the Association*.

Sir James Grant was unanimously elected President, for to him much of the credit of making the Ottawa meeting a success is due.

Dr. B. Small, the active Treasurer of the Canada Medical Association, was chosen Treasurer, while to assist in the work representatives from the different provinces were placed on the Executive.

Strong sub committees were appointed, several prominent laymen—Mr. Edwards, M.P. for Russell, being of all the most enthusiastic—were added to the list.

As set forth in the constitution, the Association is by literature, by lectures and by the activity of the Organizing Secretary in visiting different parts of Canada and creating an interest in the work amongst the profession, legislators and public,

determined to prosecute an active campaign against tuberculosis. Every citizen is interested and is asked to contribute to a membership, which includes life patrons at a fee of \$100.00, life members at a fee of \$50.00 and ordinary members at a fee of \$1.00.

Sufficient success is looked for to set other machinery in motion, and a year hence it is trusted that such a conference on tuberculosis will be held as will bring together in a series of papers the work already accomplished and that which requires to be continued.

HOSPITAL USE AND ABUSE.

The question of the use and abuse of hospital privileges by certain classes of people is a somewhat complex one. In a general way, we are quite in sympathy with the report that was adopted by the Ontario Medical Association at its last meeting. The report dealt especially with those patients who pay the hospital charge of \$2.80 a week and then receive free attendance, and recommended that only paupers in hospitals should receive free attendance. We are not quite sure that such a rule should be made absolute, and it may be well to consider the matter from another aspect.

Professor Osler, of Baltimore, delivered an able lecture on Hospitals in Troy, New York, November 28th, 1900. We will make a quotation from this address without at present offering any comments on the same. The address was published in the January number of the *Albany Medical Annals*:

"There is a widespread feeling, strongly emphasized in this State, that the charity of many hospitals is abused by persons who could pay, and pay well, for the services of a doctor at home. Undoubtedly this is the case, and the greatest care should be exercised that only deserving persons should receive aid. The question arises, who is a deserving person? We are all agreed upon the poor man, but how about the relatively poor, the clerk or mechanic with a large family? Many conditions arise in which he is a worthy recipient of hospital aid. A daughter with typhoid fever, or a boy with hip-joint disease is much better off in the wards of a hospital than at home, and

it is a good deal better for the profession that the father of the family should pay the hospital two or three dollars a week for the care of his child than that he should take food from the mouths of his little ones to pay a doctor's bill, which at the best could not be in any degree adequate to the services rendered. Take the cases, too, which need special services—the obscure skin disease, obstinate affections of the nervous system, cases requiring delicate operations; a majority of these have already paid a general practitioner a fair fee before applying to hospital. Instead of saying that our charities are abused by such people, I maintain that they are not used enough, and are not sufficiently taken advantage of by the general practitioners. The golden rule in the practice of medicine makes the interest of the patient the first consideration, and so soon as the physician is puzzled, or finds the case to be obscure, or not progressing well, instead of straining a family in straitened circumstances—distraining, I would call it—by a consultant's fee, he should send the patient to a hospital. If the patient can pay something for the accommodation well and good, if not well and good; to help such is the truest form of charity. I am not speaking, remember, of the absolutely poor, but of the relatively poor and the improvident, upon whom sickness comes as a terrible trial. In relieving these people of their obligations to the profession by placing them in more skilful hands, or where the nursing is better, the physician only does his duty, though it may be at a pecuniary loss.”

ONTARIO MEDICAL ASSOCIATION.

The annual meeting of the Ontario Medical Association will be held in Toronto, Wednesday and Thursday, June 19th and 20th. At least such is the present intention of the committees which are making the necessary arrangements. The dates have been chosen with the object of preventing the meeting from clashing with others, especially that of the American Association, which will be held during the first week in June, and that of the Railway Surgeons, which will be held during the second week of the same month.

Dr. Angus McKinnon, of Guelph, the president-elect, during a visit to Toronto in November last, after a consultation with some of the active members of the Association, appointed Dr. H. T. Machell as chairman of the Committee on Papers and Business, and Dr. Bruce L. Riordan, as chairman of the Committee of Arrangements. Dr. Machell's committee has already done a considerable amount of work, and will soon be prepared to issue a provisional programme. At the present time it is expected that there will be at least three leading discussions on the following subjects: Gastric Ulcer, Empyema, Extra Uterine Pregnancy.

A great effort is being made to get members living outside Toronto to take the leading part in the discussions. It is also hoped that the outsiders will furnish a large proportion of the papers which will be read at the meeting. While the meeting of 1900 was in many respects successful, it was thought by many that there was too much "Toronto." It is hoped by the committee that the programme for the next meeting will have an altogether different complexion.

We sincerely hope that the members of the profession in all parts of the province will take a deep and active interest in the meeting. Never was a president elected who commanded to a greater extent the respect and confidence of the profession in Toronto than the presiding officer of this year. We have every reason to think that the same thing might be said with reference to the body of the profession throughout the province. It is due to him and also to the committees, who are using their best endeavors to make the meeting in all respects successful, that members from all sections of Ontario should assist them in a loyal manner. We are glad to know that a large number of the so-called outsiders have been placed on the Committee on Papers and Business. We hope to be able to give further particulars in our next issue.

The Open Air Treatment of Phthisis.

Dr. Thomas Harris, in the *Medical Chronicle* for November, 1900, enters fully into the above subject. He points out that the death rate in Britain from phthisis has been steadily declining for forty years. Forty years ago the death rate was 2.6 per thousand living, whereas it is now only 1.7. Under favorable conditions tubercular disease may become quiescent. He states that, from his own records, in all persons dying over 20 years of age, 39 per cent. showed quiescent tubercle. Also that of a series of 192 cases of undoubted phthisis in his own practice, 10 per cent. seemed to have recovered, and were living active lives. He thinks that it would be more correct to speak of arrest of the disease than cure. Since the days of Hippocrates, residence in suitable climate has formed an important feature in the treatment of the disease. In 1840, Dr. Bodington, of Warwickshire, published a work on the treatment of consumption, which details practically all the points now discussed under the heading of the open air treatment. In 1860 Dr. Blake, of San Francisco, published papers on the same subject. In 1854 Dr. Brehmer began systematically to treat patients at Görbersdorf, on the open air plan. It appears that any bracing, pure air will do for the treatment of phthisis. It should be free from what is called relaxing in its character. The same patients can stand currents and draughts, still by far the larger number do best when protected from such conditions. There should be such shelters as will permit of exercise in bad weather. Elevation does not appear to be a matter of very much importance. The main feature being the purity of the air, and the amount of sunlight. Abundance of fresh air and sunlight is largely preventive of the disease. The death rate from the disease is higher in congested centres, factories and poor barracks than in the rural districts. In addition to the open air, abundance of good food and proper rest and exercise play a most important part. Patients living in the open are able to take a much larger amount of solid food than when housed too closely. This increase in the appetite should be encouraged. During the periods when the temperature rises, it is most irrational to take much exercise. The amount of exercise must be regulated by a close watch over the temperature. No matter

how much good the open air treatment in sanatoria, or at home may do, we must not forget the other and greater question of prevention. All those conditions that tend to cure go to prevent. The great object must never be lost sight of that prevention is better than cure. The dissemination of knowledge on the laws of prevention ought to command the attention of those who are interested in this work.

The Internal Administration of Suprarenal Gland.

In the *International Medical Magazine* for December, 1900, Dr. W. H. Bates, of New York, comments on renal gland given internally. He remarks that the gland should be chewed in the mouth, in order that it may be absorbed before it reaches the stomach. By this means it enters the system very rapidly. In several cases of exophthalmic goitre it has been of decided value. The dose is gr. v. three times a day. The exophthalmos, rapid pulse, and mucous symptoms were greatly benefited after treatment for some months. In acute bronchitis, gr. iii. were placed on the patient's tongue, and slowly swallowed. This dose was given every two hours. The cough, expectoration and râles were lessened at once. In a few minutes, the tightness, pulsation and dryness in the throat disappeared. In bronchial asthma, where there is much congestion of the mucous membrane, relief often comes in five minutes. In congestion of the lungs the relief to the congestion, the cough, the râles, the dyspnea, expectoration and dulness is very prompt. There is nothing known like it. In hemoptysis it has been found of much value. The gland should be chewed. The hemorrhage is speedily stopped. In heart disease a dose of gr. v. is a powerful stimulant. The weak heart action becomes stronger, a high tension pulse becomes softer, and an irregular pulse becomes steadier. When the gland is chewed and slowly swallowed without water, it enters the system quickly and acts directly on the heart muscle, and not through the nervous system. It does not appear to produce any effect when the pulse is normal. In aneurism, along with potassium iodide, cures of this disease have been effected in a short time. In ten minutes after a dose of the suprarenal gland, the swelling of aneurism has been noted to become greatly reduced.

Obituary.

ALFRED MORSON, M.R.C.S., ENG.

Dr. Alfred Morson, of 18 Ulster Street, Toronto, died March 3rd, aged 91. He practised in Ottawa for many years, until sixteen years ago, when he retired from active professional work and came to Toronto.

DR. HENRY OAKE MARTEN.

Dr. Marten, of 629 Lansdowne Avenue, Toronto, died at his home, February 25th. The immediate cause of death was pneumonia, although he had previously been suffering for some time from a serious affection of the esophagus. He came originally from the County of Essex, but had practised in Toronto for several years.

JAMES E. EAKINS, M.B.

Dr. Eakins died at his residence, Belleville, February 14th, after a long illness, aged 50. He received his medical education in the Toronto School of Medicine, and graduated M.B., University of Toronto in 1875. Soon after graduating he commenced practice in Belleville, where he remained until the time of his death. As a general practitioner he was very successful and much respected by his fellow-citizens. He was for many years physician to the Deaf and Dumb Institute of Belleville. We understand that the cause of death was pernicious anemia, from which he had been suffering for more than two years, and through which he was totally incapacitated for work for about fifteen months. He spent the greater part of the summer of 1900 at Mississauga Point, on the Bay of Quinte, east of Belleville, and for a time his symptoms were much improved. During the winter he grew worse, and towards the end sank quite rapidly.

Personals.

Dr. H. Crawford Scadding, of Toronto, will sail for England April 6th.

Dr. James F. W. Ross, of Toronto, sailed from Nassau for Havana March 4th.

Dr. T. B. MacDonald, of Toronto, was married to Miss Marion Macallum, February 19th.

Dr. Wm. W. Sands, of Sunbury, has been appointed census commissioner for Frontenac.

Dr. H. G. Kemp, of Toronto, formerly of Brighton, was married to Mrs. Lloyd Smith, February 19th.

Dr. T. G. Roddick, M.P., of Montreal, came to Toronto February 27th to attend the funeral of Dr. Marten.

Professor Osler, of Baltimore, came to Toronto February 7th to attend the funeral of his brother, Mr. B. B. Osler.

Drs. Graham, Chambers and Walter McKeown have become the editors of the *Dominion Medical Monthly*, of Toronto.

At last accounts Drs. Geo. McDonagh and C. Trow, of Toronto, were enjoying themselves in the Bahama Islands.

Dr. Otto Plaxton, of Parry Sound, was married February 27th to Miss Florence Love. Dr. H. H. Beaton was best man.

Dr. Charles Trow, of Toronto, left February 10th for the West India Islands, where he expects to remain about six weeks.

We learn from the *Canada Lancet* that a Canadian Association has been formed in Cleveland, with Dr. Calvin Shaw (Trin. '98), as first president.

Dr. Perry G. Goldsmith, of Belleville, expects to leave shortly for London and Vienna, where he will spend six months studying the eye, ear, nose and throat.

Dr. J. M. Macdonald, of Acton, has been appointed associate coroner for the County of Halton in the place of Dr. Uren, who has removed from the county.

Dr. J. Gow, of the resident staff of the Toronto General Hospital, has recovered from his severe attack of la grippe, and returned to his work about February 14th.

Dr. Price-Brown, we are glad to say, is being much benefited by his sojourn in the South. He expects to return to Toronto by the first of April.

Dr. Hugh A. McCallum, of London, Ont., who has been doing post-graduate work in London, Eng., during this winter, has passed the examination for the qualification of M.R.C.P. (Lon.).

Dr. Allan Shore, of Toronto, after spending some time in London at post-graduate work, has passed the examination for the double qualification of L.R.C.P. (Lon.), and M.R.C.S. (Eng.).

Dr. Bertram Spencer's many friends have recently had great pleasure in extending their hearty congratulation on the recovery of his wife, who passed through a very serious illness from double pneumonia.

Dr. R. J. Dwyer, of Toronto, is still in London, Eng., devoting his time largely to clinical medicine, especially at the National Epileptic, the Brompton Chest, the Moorefields and Blackfriars' Skin Hospital.

Dr. G. H. McLaren (Trin. '99), a member of the resident staff of Toronto General Hospital, has recovered from his serious attack of pneumonia. He returned to the hospital from his home in Hamilton, February 20th.

At the annual banquet of the Peel Old Boys' Association, held February 19th, in the Temple Cafe, the following physicians were present: Drs. J. W. Peaker, W. C. Heggie, W. H. B. Aikins, J. H. Hamilton and R. B. Orr.

The following physicians were selected by Dr. Roddick to accompany the sealing fleet from St. John's, Newfoundland, on its annual trip up the Labrador Coast: Dr. C. J. Martindale, Dr. W. F. Adams and Dr. E. H. Stafford.

Much sympathy has been expressed by the *confrères* of Dr. Arthur Jukes Johnson, of Toronto, on account of his recent sad bereavement. His youngest daughter died of pneumonia after a short illness of four days, aged four years and nine months.

Dr. R. E. McKibbin (Tor. '95), of Victoria, B.C., spent a few days in Toronto in the early part of February. He had just returned from New York, after spending three months at post-graduate work. After leaving Toronto he returned to his home in Victoria.

The following physicians are members of the Industrial Exhibition Association of Toronto: Drs. J. O. Orr, Adam Lynd, W. H. B. Aikins, Edmund E. King, S. P. May, H. J. Hamilton. At the annual meeting, held February 19th, Dr. J. O. Orr was re-elected a director.

We are glad to hear that our friend, Dr. John E. Pickard (Tor. '85), is well and doing a large practice in Virginia City, Nevada. At the last meeting of the Nevada State Medical Society, held February 1st, Dr. Pickard was elected president for the ensuing year.

We have much pleasure in congratulating Dr. Landerkin, of Hanover, County of Grey, on his appointment to the Dominion Senate. Notwithstanding the fact that the able and genial doctor is a pronounced Grit, he is one of the most popular members of our profession in Canada.

Dr. James Third, of Kingston, had a somewhat serious attack of some obscure form of paralysis February 17th. On the following day his condition being considered very serious, Dr. Stewart, of Montreal, was summoned. After three days he commenced to improve, and we understood at the time of writing that the prospects of recovery are fairly good.

The Canada Lancet states that the action for damages for malpractice against Dr. J. M. Conerty, of Smith's Falls, still drags through the courts. The long defence of this suit, which was instituted more than a year ago, and in which the complainants are penniless, is a genuine hardship for the doctor, who should have both the sympathy and the material support of his medical brethren.

The Hon. Dr. Montague left February 20th for Australia, where he will be the representative of the Independent Order of Foresters. On Monday evening, February 18th, he was entertained at a large banquet in the Temple Building, Toronto. In addition to a large number of prominent men, including many members of the Dominion and Local Legislatures, there were present the following members of the medical profession: Drs. Adams, Clarke, Clouse, Fisher, Ferguson, Fletcher, Forfar, Little, MacMahon, Millman, Oronhyatekha, Toronto; Dr. Price, M.P.P., Dr. Pyne, M.P.P., and Dr. Ryerson, ex-M.P.P. At the conclusion of the proceedings Mayor Ramsay, of Dunnville, on behalf of Dr. Montague's former constituents in Haldimand, presented him with an illuminated address and a handsome cabinet containing 115 pieces of silver.

Book Reviews.

Obstetrics.—A Manual for Students and Practitioners. By DAVID JAMES EVANS, M.D., Lecturer on Obstetrics and Diseases of Infancy, McGill University, Montreal, Canada; Fellow of the Obstetrical Society, London, England. Series edited by BERN B. GALLAUDET, M.D., Demonstrator of Anatomy and Instructor in Surgery, College of Physicians and Surgeons, Columbia University, New York; Visiting Surgeon Bellevue Hospital, New York. Lea Brothers & Co., Philadelphia and New York.

This is one of Lea's series of pocket text books. It is intended for students and junior practitioners. In a general way we may say we are not partial to this sort of text book, but we believe this is one of the best of its sort. It covers the subject of obstetrics very well. We would not like to see it replace a larger work in obstetrics for general use, as it hardly contains enough information for the ordinary practitioner. It will, however, be found useful for the student who desires a concise epitome of the subject for examination purposes.

A Text-Book on Practical Obstetrics. By EGBERT H. GRANDIN, M.D., Gynecologist to the Columbus Hospital; Consulting Gynecologist to the French Hospital, with the collaboration of George W. Jarman, M.D., Gynecologist to the Cancer Hospital; Instructor in Gynecology in the Medical Department of the Columbia University. Third edition, revised and enlarged. Illustrated with fifty-two full-page photographic plates, and one hundred and five illustrations in the text. F. A. Davis Company, Publishers, Philadelphia, New York, Chicago.

The fact that three editions of Grandin and Jarman's text-book on practical obstetrics have been published within five years, furnishes convincing proof as to its popularity. The authors are known to be able exponents of the modern views as to practical methods in obstetrics as they are understood in the United States. They have endeavored to produce a treatise essentially practical rather than theoretical. We think that it will be generally admitted that their efforts have been eminently successful. The first chapter deals concisely with the anatomy of the female organs of generation and embryology. Apart from this the writers make no attempt to teach the minutiae of anatomy, physiology, embryology and pathology. While we are not prepared to agree with the authors in every particular, we must say that we admire very much the style of the book, which makes it especially well suited both for students and practitioners. We understand that the work has become very popular in the United States, and has been recommended as a text-book by the authorities of a large number of medical colleges of that country. The authors are practical teachers,

not mere theorists, and have given us a book which will be highly appreciated by those who want solid facts rather than vague theories, concerning the science and art of obstetrics.

Anomalies of Refraction and of the Muscles of the Eye. By F. B. TIFFANY, A.M., M.D., Professor of Ophthalmology and Otology of the University Medical College of Kansas City, Mo., etc.

This book covers much the same ground as Horrington's. It is a well gotten up work of 300 pages. It is an endeavor to make plain to the student and general practitioner the difficult subject of refraction. From the fact that the volume has reached a fourth edition, we may judge that it has secured for itself a good place in public estimation. The genial author has taken every pains to elucidate his subject, using illustrations freely when necessary. Reflection and Refraction of Light, the Anatomy of the Eye with special reference to Accommodation; the various forms of Ametropia are dealt with in turn. Chapter six gives directions in regard to the examination of the eye. The author's remarks on muscular anomalies are characterized by clearness and good judgment. The last chapter is on spectacles, and contains the necessary directions for the taking of measurements in the fitting of glasses. The appendix contains data gathered from the examination of 2,040 school children of Kansas City. The percentages of ametropia are thus given: Irish, 29.87; Swedish, 27.2; Germans, 24.8; Americans, 21.1; Scotch, 20; French, 19.2, and English, 17 per cent. The book will be of great value to any who carefully study it.

A Text-Book upon the Pathogenic Bacteria, for Students of Medicine and Physicians. By JOSEPH MCFARLAND, M.D., Professor of Pathology in the Medico-Chirurgical College, Philadelphia; Pathologist to the Medico-Chirurgical Hospital, Philadelphia; Fellow of the College of Physicians of Philadelphia. With 142 illustrations. Third edition, revised and enlarged. W. B. Saunders & Co., Philadelphia, Pa.

This work gives a concise account of the technical procedure necessary in the study of bacteriology, a brief description of the life-history of the important pathogenic bacteria, and sufficient description of the pathological lesions accompanying the micro-organismal invasions to give an idea of the origin of symptoms and the causes of death. It is not always easy to choose between the pathogenic and the non-pathogenic, but the author has endeavored to describe those bacteria which can be proved to be pathogenic by the lesions or toxins which they engender. The book is an admirable one in all respects, and well suited for both students and practitioners. The price is \$3.25 net, and the Canadian agents are J. A. Carveth & Co., Toronto.

Elements of Clinical Bacteriology for Physicians and Students. By DR. ERNEST LEVY, Professor in the University of Strasburg, I.E., and DR. FELIX KLEMPERER, Private Docent in the University of Strasburg, I.E. Second enlarged and revised edition. Translated by AUGUSTUS A. ESHNER, M.D., Professor of Clinical Medicine in the Philadelphia Polyclinic, Physician to the Philadelphia Hospital, etc. W. B. Saunders, 925 Walnut Street, Philadelphia. Price, \$2.50. Canadian Agents, J. A. Carveth & Co., Toronto, Ontario.

The authors of this excellent book have endeavored to group the results of bacteriological investigation from a clinical point of view. As they have done much original work in both clinical medicine and bacteriology they are especially well qualified for the work they have undertaken. We can recommend the book with confidence to both medical students and general practitioners. Those who read it will get a clearer idea of the nature of infectious diseases and a more intimate knowledge of their prophylaxis diagnosis and treatment. We join with the authors in hoping that this exposition of what bacteriology has accomplished may help to show how useful to the physician in his double capacity of counsellor of the well and coadjutor of the sick are bacteriologic thought and action.

The Medical Alliance of America.

At the regular stated meeting of the Toronto Clinical Society, held in St. George's Hall, Elm Street, Toronto, on the evening of March 6th, 1901, the following resolution was unanimously adopted:

"That the Toronto Clinical Society is of the opinion that the Prospectus sent forth by the so-called Medical Alliance of America, with headquarters in Montreal, is of such a character as to make it very undesirable that any member of the Profession should be associated with the Alliance in any capacity whatever.

"It is further resolved that a copy of this resolution be published in the first issue of each of the Toronto medical journals."

The menopause is not a disease: *per se* it is not even a derangement. It is an epoch of life; it is the closing of one chapter, the opening of another.—*Med. Summary.*

The first emancipator of the slaves, John C. Frémont, never received any honor or gratitude from the negro race: a daring soldier and a major-general, he lived in poverty for twenty-five years without a pension: the man who had given a vast realm richer than Golconda to his country, he died, not owning a single foot of ground to leave to his children.—*February Ladies' Home Journal.*