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Vol. 5.

WINNIPEG, FEBRUARY, 1899.

No. 10.

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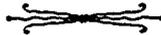
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WINNIPEG, FEBRUARY, 1899.

No. 10.

ORIGINAL ARTICLES.

TENIA ECHINOCOCCUS.

By Dr. Gordon Bell, Provincial Bacteriologist.

On November 4th 1898 at laboratory in connection with Medical College two dogs were fed with daughter hydatid cysts. These cysts had been removed a few hours before from the liver of a patient in general hospital by Dr. Chown.

After five weeks one of these dogs was killed but nothing was found, either because insufficient time had been allowed for development of worm or because scolices had been unable to obtain a hold, owing to an intestinal catarrh that the animal was suffering from at the time.

The second dog was examined exactly nine weeks after being fed, when the lower part of duodenum and upper part of jejunum were found studded with hundreds of the mature tenia. They presented the appearance of delicate white filaments from $\frac{1}{8}$ to 1-6 of an inch in length with head firmly fixed deep among villi of intestine. A stream of water failed to dislodge them and they retained their hold after being placed in a solution of formalin.

Under the microscope they were seen to be formed of four segments the last one alone containing eggs, in some of which the proscoclex could be distinctly made out.

Throughout all the segments as well as the head large clear refracture granules were distributed; but their significance is unknown.

This is the first time that the mature tenia has been seen in Manitoba, although in no part of America are hydatid cysts so frequent. There is no evidence so far of any case having originated in this country; they having without exception been imported from Iceland.

TUBERCULOSIS IN OUR MILK SUPPLY.

By Dr. Inglis, Medical Officer for Winnipeg.

Considerable interest has been aroused amongst citizens by recent investigations into the purity of our milk supply. It might prove of interest to readers of your journal if a few of the facts regarding this subject were placed before them, more especially as the public discussion, being carried on, will no doubt result in frequent inquiries from anxious patients as to the necessity for precautions in using milk from diseased animals.

For some years past attempts more or less spasmodic, have been made by the city health department, acting under instructions from the city council, to eradicate from the dairy herds supplying the city with milk, all diseased animals and more especially

those suffering from tuberculosis. For this purpose a by-law was enacted and a veterinary inspector appointed whose duty it was to inspect with tuberculin all dairy cows. Some progress was made at first, but owing to the large percentage of cows found suffering from this disease the dairymen finding that the by-law rather harshly affected their interests, attacked its legality in the courts and succeeded in having it quashed twice, on the third attempt the city managed to pass a by-law which stood the test of an appeal. The city council then decided to change their veterinary inspector of dairies and appointed to the position a gentleman who had made himself prominent by publicly opposing the tuberculin test, as a diagnostic agent. As might have been anticipated matters did not make very rapid progress and it was finally decided to place the testing of cows in the hands of an inspector appointed by the Dominion Government. This gentleman has conducted a series of tests in some of the larger dairies and has reported that out of 334 cows examined he found 165 tuberculous, nor does this bare statement represent to my mind the most serious aspect of the case, as in one of our largest and best dairies out of 98 cows 92 were found to be consumptive and in another herd of 65 cows 52 had to be condemned. In the case of the larger herd fortunately a pasteurizing plant was available and this was at once put in operation and the dairy man was given time in which to dry off his cows. In the other dairies, no such plant being available the sale of the milk had to be stopped. Regarding the dangers to be apprehended from the use of milk from tubercular animals, the Royal commission which was appointed by the British Government to investigate this subject, after exhaustive experiments say, "We regard it then as established that any person who takes tuberculous matter into the body as food incurs risk of acquiring tuberculous

disease." The extent of danger would no doubt be influenced by many factors, notably the diathesis of the individual, the resisting power to all microbic diseases conferred by age, habits of life etc., and also the amount of virulent material ingested at any one time. The experiments conducted by this commission also convinced them that the location of the disease in the system of the animal had an influence in determining the infectivity of the milk they say "according to our experiment, then the conditions required for ensuring to the milk of tuberculous cows the ability to produce tuberculosis in the consumers of their milk is tuberculous disease of the cow affecting the udder." And in a foot note they add "We have been told by various observers, that animals have become tuberculous after being fed with milk from tuberculous cows, having no appreciable disease of their udder, evidently if this does occur, it can be but seldom." Now with reference to our Winnipeg dairy cows, we can form no idea regarding the number of them having tuberculosis of the udder, as this affection of the udder is not peculiar to tuberculosis in an advanced stage, but may be found also in mild cases, which show no external manifestation of its presence for a long time, again I would quote from the report "The milk of cows with tuberculosis of the udder possesses a virulence which can only be described as extraordinary. All the animals inoculated showed tuberculosis in its most rabid form." Recently in company with Dr. Bell and veterinary surgeons Torrance and Little, I had an opportunity of being present at the slaughter of some animals which had reacted to the tuberculin test, and in one of these, a fine Holstein cow, in a good flow of milk only slight pulmonary lesions were present, but the udder showed unmistakable signs of being infected with the disease. In no case that

has come under my notice as yet, has the tuberculine test, if properly applied, been found to indicate a false diagnosis. I would submit therefore, in view of these facts, physicians should interest themselves for the benefit of their patients in aiding, by every means in their power, the final solution of this very vital question, as to how best we can safeguard this important food product.

VALUE OF BOVININE.

I desire to draw the attention of the profession in Manitoba and the Northwest to the therapeutic value of the above, as an external dressing to wounds, and internally as a builder up of the system. In two recent cases which came under my care, the satisfactory results in the use of Bovinine were very marked. I excised a large rodent ulcer in the region of the anus, occurring in a female aged 27. After thoroughly cauterizing it was dressed with lint saturated in Bovinine, and under this treatment the somewhat extensive wound granulated and healed rapidly.

The second case was that of a boy aged 12, on whom I operated for tuberculous disease of the hip joint. The lad was much run down from copious discharge. He was given a teaspoonful of Bovinine three times a day, and in a month had gained considerably in weight, with decided improvement in the local disease, which steadily continues. At my request Dr. Todd, one of the surgeons to the General Hospital here, tried Bovinine dressing in the cases of old indolent varicose ulcers, under which they rapidly healed.

One swallow does not make a summer or half a dozen cases prove the efficacy of a certain line of treatment, but this preparation, which is largely used in the United States, and by published cases with excellent effect, certainly merits a trial.

J. P. PENNEFATHER.

SELECTED ARTICLES.

THE GENERAL PRACTITIONER.

By Chas. Merrill Smith, M.B., M.C.P.S.O.,
Orangeville.

It is not my intention to give a dissertation on the general practitioner of ancient, mediæval, and modern times, but rather to confine myself to a few salient points which have presented themselves to me, illustrating our present condition.

Like the Gaelic "Meenister," who, when he took as his text the words, "The devil goeth about like a roaring lion, seeking whom he may devour," divided it into three parts as follows: (1) Who the devil he was; (2) What the devil he was doing; (3) What the devil he was roaring about. I shall treat my subject under three heads, namely: (1) What he (the general practitioner) was; (2) What he is; (3) What he might be; in other words the *fuere*, the *esse* and the *posse*. I have neither the time nor ability to sketch the fathers of medicine, mythical and real, but will merely name *Æsculapius*, the pupil of *Chison*, and his sons *Machaon* and *Podalisius*, of whom *Homer* wrote in song: "Of two great surgeons, *Podalisius* stands This hour surrounded by the Trojan bands, And the great *Machaon*, wounded in his tent, Now wants the succour which so oft he lent."—thus showing that in those days as in our times the non-combatants," as our supercilious British officers call the medical staff, did not flinch from their duty in the midst of danger. Neither shall I regale you with the histories of *Hippocrates*, *Galen*, *Avicenna* and *Celsus*, but will refer you to character sketches of the more modern physician to *Shakespeare* and *Dickens*, whose brilliant pens have immortalized the family doctor.

The great dramatist tells us in "King Lear" how disease was sold dearer than physic, as it is also in our day; for is there one here who does not know that the scoundrel who has given his last five-dollar bill to get a malady will spend \$30 in trying to evade payment of \$20? While the novelist caricatures certain types of *Drs. Sunebey*, *Jeddans*, *Blankers*, *Kurtancunnagen*, *Prof. Muff* and the *Charlatan Marigold*, the reader will observe that

due honor was paid to the studious, hard-working, faithful family physician, the friend and confidant of the household, whose words of hope and cheer were ever ready, as, guided by his skill and devotion, the children were led from infancy to childhood, from youth to man's estate and womanhood.

In comparatively recent times there stand out in noon-day brightness the names of Sydenham, Simpson, Hunter, Jenner, McDowell, Atlee, Peaslee, Sims, Lawrence, Watson and hundreds of others which have been blazoned on the scroll of Fame.

Ian Maclaren has with burning pen told of one who was, I am proud to say, but a type of the true physician. Then, as now, the family doctor rode through mire and mud, turned night into day and risked limb and life in efforts to succour the sick, heal the helpless, and aid the mother in her agony. What were his rewards? Were they as in the days of Hippocrates, garlands, gifts and works of art sublime, such as the gold-ed statue presented by the people of Argos? I trow not. In many cases, I am safe in saying, he was paid as now, with wood short in measure and queer in quality, or hay heavy with a night's rain, having been loaded the previous evening and left out to get the dust laid properly! But while the old family doctor had a wide field in which to practice, and the whole of the human anatomy to keep in repair, the practitioner of to-day not only has to contend with our crowded ranks, but has his share of the corpus (not corpse), so narrowed down by the eye and ear specialist, the nose and throat, the thoracic, the genito-urinary, the orthopedic, the nerve and rectal specialist, and dermatologist, that nothing will shortly be left but the umbilicus, and even that may be claimed by the laparotomist.

We are to-day to use a Darwinian phrase, "the victims of an untoward environment," a pauperizing paradox. The State calls upon us for statistics and gratuitous services in sanitary matters and preventive medicine, gives grants to hospitals instituted primarily for a charitable and noble purpose, but now affording free or nearly free medical and surgical aid to people, who, though well-to-

do, are mean enough to claim the privileges of paupers.

Among the other leeches that suck the life-blood of the general practitioner are the patent medicine vendors, the manufacturing chemist, and, shall I say it, yes, the repeating and prescribing druggist or pharmacist as he now calls himself. When formerly each member of the family would, on some occasion, consult the doctor, now the old man either takes K. D. C. or Warner's Safe Cure, or hies away to a hospital and gets put to rights at the rate of \$14, \$12, \$6 or \$2 80 per week according to his ability to lie about his worldly circumstances. The old lady takes Celery Compound, or drops into the hands of the gynecologist, the son takes secret remedies for secret vices, G. and G. or Cr. and C. Capsules, while the daughter takes Pink Pills for Pale People, or perhaps sits at the feet of that princess of modern fakirs, the Christian Scientist, paying therefore the modest fee of \$100 for a brief term.

Instead of fees, he (the general practitioner) frequently gets fevers; instead of glory he gets gray. "but not with years"; instead of reward he gets rheumatism, and contracts pneumonia and sciatica in lieu of acquiring a comfortable livelihood. I have briefly glanced at the esse without mentioning the serious condition of toxemia in the corps medicale itself, which requires a vigorous flushing out of the primæ viæ.

Agitate and unite, unite and agitate. Concerted action, as to our rights, regarding Dominion registration, the duties of municipalities towards the indigent sick, State aid to preventive medicine, and original investigations would give to our much abused vocation that status which it deserves. Look at our legal friends in parliament, and their name is legion. Do they confine their energies to the interests of their individual constituencies? No! each and all labor to make the practice of law more indispensable to the citizen and lucrative to themselves. The soldier fighting for his country and slaying her enemies is recognized by his Queen and her Viceroy, and just and right is it that such should be the case; but did you ever hear of pensions,

K.C.B's., or K.C.M.G's., being bestowed on any one of the host of our confreres who have become disabled during their efforts to preserve the lives of Her Majesty's subjects? Or can you point to families of those who have suffered martyrdom through fatal contagious affections, and say our country has done its duty towards her defenders?—Canadian Practitioner and Review.

REPORT OF 78 CASES OF PULMONARY TUBERCULOSIS TREATED WITH WATERY EXTRACT OF TUBERCLE BACILLI.

A report of 78 cases of Pulmonary Tuberculosis, treated at the Winyah Sanitarium, at Asheville, N. C., in 1898, with Watery Extract of Tubercle Bacilli, by Dr. Karl von Ruck, appears in the February number of the Therapeutic Gazette.

The author giving due credit to the advantages of the favorable climate of the Asheville plateau as well as to the systematic employment of hygienic and dietetic methods, in a special institution, shows nevertheless by his results the unmistakable favorable influence of this preparation, which he perfected in his Laboratory in February, 1896.

He with many others, notably Professor Koch, have long realized that the bodies of tubercle bacilli contain a soluble substance, a proteid upon which the curative action of all tuberculin preparations and modifications must depend, small and variable quantities of which were thought to enter into the culture fluid from which the tuberculin preparations are made.

Experiments upon animals have shown that the injection of dead tubercle bacilli produce both curative and immunizing effects, but they have always produced abscesses at the point where they were injected and often spurious tubercle in the animals experimented upon, conditions which seemed to preclude their use in the treatment of human tuberculosis.

A solution of the tubercle bacilli, without injury to the curative proteids was therefore naturally sought for, and in April, 1897, Professor Koch announced that he had accomplished this in the production of

Tuberrulin R., which was then given to the profession.

Several weeks later Dr. von Ruck announced his success in also making the experiments and methods in a paper read before the American Climatological Association and published in its transactions for 1897 and also in the Therapeutic Gazette for June 1897. His method of preparation differs from that published by Professor Koch and is briefly as follows:

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 water bath with a temperature of 120F. 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.

Prof. Koch simply triturated his tubercle bacilli and then put them into distilled water and separated the undissolved germs with a centrifugal machine. His preparation did however not pass through a porcelain filter and it was subsequently shown that when an attempt of filtering through porcelain was made, a residue collected in the filter consisting of Tubercle Bacilli.

Virulent infection followed the injection of this residue in animals and for this reason Professor Koch was obliged to withdraw his Tuberculin R., it being an emulsion of tubercle bacilli and fragments of such, rather than a true solution.

Koch's claim that in a true solution of the tubercle bacilli the final perfection of a specific remedy was attained, would appear to be verified by the results which Dr. von Ruck reports.

He treated with his Watery Extract 20 cases in the early stages, all of which recovered, with an average gain of 11 pounds in weight, and subsidence of all symptoms.

Of 37 cases in a more advanced stage 27 recovered, 7 were greatly improved, 3 improved, and none grew worse, gaining on an average nearly 13 pounds each.

Twenty-one cases in a seriously advanced stage were also treated, of which 3 recovered 9 were greatly improved, 7 were improved, only 2 grew worse or died, there being an average gain in weight of 10½ pounds each.

The remedy was also given for trial to Dr. Denison of Denver, Dr. Taylor of St. Paul and Dr. Williams of Asheville, all of which obtained good results. Dr. Williams supplying the date of 12 cases treated by him with von Ruck's extract, shows 7 early stage cases, all of which recovered; of 3 cases in the second stage, 1 recovered, and 2 were greatly improved, and of 2 far advanced cases, 1 recovered and 1 grew worse.

Comparing his previous results with those obtained with the watery extract in von Ruck's institution he shows the results as follows:

Cases.	Recovered.		Improved.	
	%		%	
Treated without Specific Remedies	12.1	816	31.0	
Treated with Koch's original Tuberculin	55.5	379	37.5	
Treated with Antiphthisin and Tuberculeidin	32.5	182	40.8	
Treated with Tuberculinum Purificatum (von Ruck)	43.4	166	39.2	
Treated with Watery Extract of Tubercle Bacilli (von Ruck)	64.1	78	33.3	

Among other matters of interest, the report also contains mention of Dr. von Ruck's efforts to produce a serum, as suggested by Professor Koch, in his paper by using Tuberculin R. and his Watery Extract for immunization. Dr. von Ruck used goats for this

purpose and injected them in increasing doses reaching 70 c. c per single dose in the course of six months.

Serum taken from these animals failed to protect or cure guinea pigs, and finding his results entirely at variance with the claims of Dr. Fisch, he purchased serum from Dr. Fisch's laboratory and treated a number of guinea pigs, all with negative results.

These experiments are given in detail and and it does not appear that the degree of tuberculosis or its course was in any way modified by the injection of this serum; the control animals showing no greater progress in the disease than did those which were treated.

Full directions are given for the use of the Watery Extract, the beginning dose being 1-1000 of a milligram, and this is gradually increased to 5 milligrams. There are three solutions, No. 1 containing 1-100 of one per cent. No. 2 1-10 of one per cent. and No. 100 containing 1 per cent. of the anhydrous extracts.

A CASE OF NEUROTIC VOMITING OF TEN YEARS' DURATION

By H. L. Spense, M.D.

Neurologist to the Cleveland City Hospital; Chief of Clinic for Diseases of the Nervous System, Lakeside Hospital; Consultant Neurologist, Vega Ave. Hospital.

Though neurotic vomiting is not an uncommon phenomenon, the following case presents sufficiently remarkably features to merit publication. The history of the patient is as follows:

Miss C., aged 38, had an attack of malaria fever ten years ago during which she was for two months confined to bed. During convalescence she was taken with severe frontal headache followed by loss of appetite and vomiting. This rapidly increased in frequency and severity till, within a few weeks, she went to bed and remained there for a year. During this time, though the appetite improved considerably, vomiting persisted without a day's intermission. It usually occurred shortly after eating, and was rarely accompanied by nausea. There was at first considerable gastric pain and tenderness together with flatulence. From

that time, during the next ten years, there was a diarrhetic tendency, and from that date (ten years ago), the vomiting continued without intermission till the month of August of the present year. Strange as this statement may seem, it is an actual fact that, in all this time, the patient never failed on one occasion to vomit after eating. Needless to say the amount of ejecta varied considerably, from a mere regurgitation to a total loss of the stomach contents. During this time she became greatly emaciated and was debarred from any occupation with the exception of a little sewing now and then, and twice in this period she was confined to bed for a year at a time. There was never any evidence of gastric dilatation or organic disease of the stomach, kidneys, brain, or liver. As the efforts of over twenty physicians had proved fruitless she came to this city a year ago and remained during that time in the St. Alexis Hospital. Early in August I was asked by Dr. Kofron to examine the patient with a view to suggestive treatment. I found a tall thin woman of somewhat sad expression and in behavior quite the reverse of the traditional hysteric. I might here remark that I was unable at any time to find any of the stigmata of hysteria nor was there anything in her history suggestive of that state. After a little explanation she agreed to hypnotic treatment and readily passed, under the suggestion of sleep, into a lethargic state in which the necessary ideas were impressed. At the same time, as it was not possible for me to see her daily, I communicated the so-called hypnotic influence by suggestion to Dr. Shaw, then interne at the Hospital, with the assurance that he would be able to carry on the treatment in my absence. I also prescribed a belt to be worn over the stomach which, needless to say was merely a medium for suggestion. It consisted of a square of tinfoil sewn into a bandage. A milk-diet was prescribed with the positive statement that she would retain it, and from that day her cure may be said to have begun. During the remainder of her stay she vomited, I think, but twice, this on each occasion being due to unusual fatigue.

Within a little over six weeks she left for her home, not having vomited during that period. At the time of her last treatment I asked her if she could name anything that she could not digest or retain and she was unable to do so. A few days ago she wrote that she was at work and doing well.

The interesting fact in this case is the duration of the vomiting and its immediate response to treatment addressed directly to the mind. If time allowed it would be interesting to discuss the mechanism, so to speak, of a neurosis such as this. Many theories have been offered in explanation of phenomena of this kind, yet it would be decidedly rash to accept any one of them at present as final. Though yielding so readily to mental impression there is nothing more certain than that hysteric symptoms like the present are in no sense products of imagination. But ignorant as we are of the intimate mechanism of such results we cannot afford to ignore the abundant evidence we now possess of the value of so-called hypnotic treatment. It has been my good fortune within the last two years to successfully treat five cases of protracted vomiting by this method, in each of which other agencies have been employed without result. I need not emphasize the importance of a careful diagnosis before the employment of treatment of this kind. One must differentiate the organic from the so-called functional, but in cases of this kind coming under the latter heading I am convinced that psychotherapy in one form or other offers practically the only hope of cure.—Cleveland Journal of Medicine.

HUDSON BAY DISAPPEARING.

The rapid rise of the land about Hudson bay is said to be the most remarkable gradual upheaval of an extensive region ever known. Driftwood-covered beaches are now 20 to 60 or 70 feet above the water, new islands have appeared, and many channels and all the old harbors have become too shallow for ships. At the present rate, the shallow bay will disappear in a few centuries.

 EDITORIAL.

The Wise Men from the East have come, have seen, have gone, and murderer Paul Brown has conquered. His scientific cunning has won the day. Shortly after the last interview he had with the learned Psychologists, he remarked to one official, "some want to hang me, to get me out of the way, but the fees paid to those two fools they brought up would keep me good for the next ten years." This recalls to the mind of the writer a somewhat similar circumstance that occurred on the other side of the Atlantic. A man was placed on trial, but during his incarceration in gaol, he had managed to impress everyone he came in contact with that he was insane, and they all testified as to his insanity. The last witness was the physician to a large asylum, and also to the gaol, who gave evidence so strongly as to the prisoner's insanity that the Judge directed the verdict. No sooner was this recorded than the prisoner turned to a warden and in audible tones remarked, "that Dr. is a fool anyway." We all recognise the difficulty of proving sanity and insanity in many cases, and it is only accomplished by long and patient investigation. Most assuredly the investigation made by Drs. Burgess and Letts, as to the sanity of the convict, Paul Brown, under sentence of death, was most perfunctory, incomplete, and unsatisfactory. Commissioners have the privilege of calling any witnesses they choose. And in every instance we have hitherto known, no possible evidence, by which the truth could be arrived at, was passed over, but the extraordinary conduction of this inquiry, was somewhat staggering. The only possible solution is, that these physicians came to Winnipeg predetermined to pronounce Brown insane, and therefore carefully excluded all and every evidence which would prove the contrary, and enable the Minister

of Justice to form a correct opinion. The only medical men examined were the two physicians retained for the defence, who stated at the trial they would neither pronounce him sane or insane. The Eastern Psychologists contented themselves with this medical evidence, ignored the four medical men who were called on behalf of the Crown, one of them the gaol physician, another of them the examiner in lunacy for the Provincial Government, besides, they thought it unnecessary to examine the chief of police, who saw him immediately after the occurrence, the members of the force who had opportunities of observing him from within half an hour after the commission of the crime to the time of his removal to the provincial gaol, and several other parties whose evidence one would have thought they would gladly have availed themselves of. This mode of conducting a solemn inquiry unquestionably is open to grave comment. Great stress has been laid both at the trial and at this commission on the fact that the prisoner preferred to be hung than confined in a lunatic asylum. We believe with many others that Brown, a lazy, idle, worthless specimen of humanity made himself thoroughly acquainted with the treatment of criminals confined in asylums in Canada, where they are fed, clothed, and housed without effort on their part, a lotus-eating life so captivating to the negro imagination, and hence his scientific personation of a mad man, well thought out, well carried out and eminently successful. With the sentence of death passed on him, and the noose before his minds' eye, if he desired to be hung, by keeping his mouth closed he would long since have solved the problem, but, no sooner was he sentenced than he states a history of his former life leading up to the idea of insanity, which a daily paper philanthropically investigated and gave in sensational form to its readers. But on many points grave omissions occurred in this

narration. It does not say for what crime he was confined in an asylum in the States. It is stated he was hired out to a farmer as a workman and this farmer chained him up, he could not have been of much use on a farm while in this condition. There are other points omitted in the career of Paul Brown as given to the public, which are largely productive of doubt to anyone analysing it with a view of coming to a correct conclusion as to the story's credibility and Brown's insanity. That the twelve intelligent jurymen who attentively listened on three days to the evidence brought forward by the defence and the crown, gave a just judgment, and the judge who tried the case, a righteous sentence, if hanging is the punishment awarded by English law for deliberate murder by a person perfectly cognizant of what he is doing, there can be no doubt, the opinion of the two superintendents of asylums who were sent up from the east, notwithstanding. Whether the convict Brown disappeared from the public gaze through the trap door of the gallows, or behind the portals of a criminal lunatic asylum, provided he is safely guarded in the latter place, for the astuteness which has stood him in such good stead in the past will probably enable him to get at large again, should he so desire, and perpetrate another crime, is immaterial to us all. This lies in the hands of the Minister of Justice and no one is likely to cavil at what he decides. But, the medical men who were called on behalf of the crown, with many other witnesses, desire to put on record that the conclusion arrived at by Drs. Burgess and Letts has not in the slightest degree changed their opinion. They believe the convict has been deliberately acting a part which has led them astray.

The following is copied from the pages of the Free Press, Feb. 9th. There is no ground

for doubting the authenticity of the paragraph:

"Sheriff Inkster received a letter Tuesday morning from the secretary of state, Ottawa, informing him that the sentence of Paul Brown, the negro murderer, who was at the assizes here last fall, condemned to be hanged, had been commuted to imprisonment for life. The insanity experts who examined Brown recently, have declared him to be of unsound mind. When the doctors left here it was intimated that they had decided that the murderer did not possess rational mental faculties.

At 10.30 o'clock Sheriff Inkster, accompanied by Governor Lawlor, went to Brown's cell to communicate to the prisoner the important news. The sheriff on entering informed the prisoner that he had a letter for him. Brown crouched down in his cot and his face assumed the frowning expression noticed at his trial. He evidently expected to receive word of his early execution. On being informed, however, that his sentence had been commuted and that he would spend the rest of his natural life in the Stoney Mountain penitentiary, his whole face lit up and he exclaimed, with a smile, "Why, I will have a good home all my life." The prisoner will be transferred to his new place of confinement on Tuesday."

This statement will go far in the minds of most men to bear out the truth of our surmise. Paul Brown has successfully played a very clever part and with the exception of the judge who tried him, the jury who convicted him, the deputy attorney-general, Mr. Maclean, who prosecuted him and the crown witnesses who testified to his sanity at the time he committed the murder, this astute convict has managed to humbug scientific and non scientific men. The above remarks on this case, though written immediately after the Eastern Savants left Winnipeg have been delayed publication waiting the official announcement, though what that would be, in consequence of the commissioners announcing the opinion they had arrived at before leaving the city, and making their report to the Minister of

Justice, was well known. With a criminal lunatic asylum in eastern Canada, it is somewhat of a hardship on the denizens of the Prairie Province to confine a miscreant so dangerous in an unwall'd prison, as the penitentiary here is. Why not send him east, when he might afford study for the further advancement of psychological science in that part of the Dominion?

MISCELLANEOUS ARTICLES.

THE BORDER LINE OF SANITY AND INSANITY.

This line has never been definitely fixed. Maudsley says:—"It certainly would be vastly convenient, and would save a world of trouble, if it were possible to draw a hard and fast line, and to declare that all persons who were on one side of it must be sane, and all persons who were on the other side of it must be insane. But a very little consideration will show how vain it is to attempt to make such a division. That nature makes no leaps, but passes from one complexion to its opposite by gradations so gentle that one shades imperfectly into another, and no one can fix positively the point of transition, is a sufficiently trite observation."

It is with those who dwell near this border line that science receives her greatest perplexities. When crimes are committed by those who are near this line the great question has been—on which side of the line have they been? The question of responsibility is determined by an attempt to find the line, and to find out on which side of the line the deed has been committed.

There are many men who are sane, but who live near the border; a slight trip or stumble and they are liable to be thrown over the line into the land of insanity. Let such a one live properly; let him attend regularly to the laws of his being; let him eat proper food, take proper drink, and have proper sleep, and he passes through the world as a sane man. But let

that man be thrown into mental worry; let him meet with reverses in business—and he loses his equilibrium, and becomes insane. Let that man drink spirituous liquors to drive away dull care—his weak will-power becomes weaker; his habit of drinking now overcomes him; he swears by all that is good he will leave it, but he is soon found again under the influence of the intoxicating bowl. Let that man commit some deed of violence while in an intoxicated spell; we shall not discuss the question of responsibility? He may be paralysed in speech and ideas, or he may be furious with rage, or wholly insensible; or he may suffer from delirium tremens, even when he has ceased drinking perhaps for days. Besides, his delirium tremens may run into an ordinary insanity with delusions, and he may lapse into dementia and utter obliteration of memory and mental power, from which he may never emerge.

EXPERT WITNESSES.

A late witty judge is well known to have classified false witnesses under the three heads of "liars, d—dliars, and experts;" and it is quite certain that an element of partisanship, of desire to do their best for the litigant who had employed them, used seldom to be absent from the testimony of the latter. In many instances there would be a certain amount of probability in favor of each of two different or even opposite views, and these views would each be presented by men whose opinions were of recognised value, but between whose conflicting statements it would be impossible for a jury to decide by any other process than that of tossing up. A lady, for example, received an accidental blow on her right eye from the whip of a passing coachman, and sued the coachman's master for damages. Experts examined her, and it was found that she had an early stage of cataract in both eyes, but more advanced in the right than in the left. On this both sides were agreed. The plaintiff's expert, however, maintained that the blow had either been the ex-

citing cause of the cataract in the right eye, or, at all events, the cause why it had made more progress in this eye than in its fellow; while the defendant's expert maintained, with equal force and with equal show of reason, that both cataracts were entirely independent of the trivial injury, and that a more advanced condition in one eye than in the other was an ordinary incident of the affection. Both experts, if they had been in the hands of counsel who know how to cross-examine them, would have been made to confess that their respective views were hypothetical, and that there was about as much to be said in favor of one as of the other. Manner, dogmatism, reputation, would have much influence upon the decision; and, in these circumstances, not so many years ago, there arose in London a class of men who systematically laid themselves out for being medical witnesses, and who were to be found, on one side or the other in almost every trial between a railway company and an injured passenger—"The Hospital."

COFFEE AS A DISINFECTANT.

The use of coffee as a disinfectant is generally known, but it is doubtful if the majority of people are aware of its true value in this direction. They probably knew that it is handy and harmless; but besides these qualities it is really one of the most powerful and effective agents known, as has been shown by repeated experiments. In one case a quantity of meat was placed in a close room and allowed to decompose. A chafing-dish was then introduced, and 500 grammes of coffee were thrown on the fire. In a few minutes the room had been entirely disinfected. In another room the fumes of sulphuretted hydrogen and ammonia were developed, and the smell—which no words can express—was destroyed in half a minute by the use of ninety grammes of coffee. As a proof that the noxious smells are really decomposed, and not merely overpowered by the fumes of coffee, it is stated that the first vapours of the coffee

are not smelled at all, and are, therefore, chemically absorbed, while the other smells gradually diminish as the fumigation continues.—Health.

TEA AND RHEUMATISM.

The habitual use of tea as a means of relieving headache is without doubt an efficient cause of rheumatism in numerous ways. The writer has met many persons who could not forego the morning cup of tea or coffee without suffering severely from headache and depression during the day. Haig has shown that a dose of uric acid will cure a headache, by driving the uric acid out of the blood. The day following, however, the reverse condition exists. The amount of uric acid found in the blood is increased, and a new dose must be given to protect the nervous system from the result of the contact of this nerve poison. The thein, or caffeine, of tea has precisely the same effect as uric acid, and hence has come to be a favorite domestic remedy for headache. When used habitually, however, as will readily appear, the effect must be to cause a storing up in the body of uric acid and urates, thus laying the foundation for chronic rheumatism and the various allied conditions which have their foundation in the so-called uric acid diathesis, or lithemia.—Editorial in "Good Health."

VEGETABLES AS MEDICINES.

There is no reason why everyone should not have a knowledge of the chemistry of cooking, and of the healthfulness of different articles of food. There is much that is healthful in the way of fruit and vegetables, which are not only delicious articles of food, but are really health-preserving, for often a slight indisposition of children or elderly persons can be readily cured by the free use of these culinary remedies.

Spinach has a direct effect upon complaints of the kidneys; the common dandelion used as greens is excellent for the same trouble: asparagus purifies the blood, celery acts admirably upon the nervous system, and is a cure for rheumatism and neuralgia; tomatoes act upon the liver,

beets and turnips are excellent appetizers, lettuce and cucumbers are cooling in their effects upon the system; beans are a very nutritious and strengthening vegetable, while onions, garlic, leeks, chives, and shallots, all of which are similar, possess medical virtues of a marked character, stimulating the circulatory system, and consequent increase of the saliva and the gastric juice promoting digestion.

Red onions are an excellent diuretic, and the white ones are recommended eaten raw as a remedy for insomnia. They are tonic and nutritious. A soup made from onions is regarded by the French as an excellent restorative in debility of the digestive organs. We might go through the entire list and find each vegetable possessing its special mission of cure, and it will be plain to everyone that a vegetable diet should occasionally be partly adopted, and will prove of great advantage to the health of the family. With vegetables, as with everything else, much depends upon the cooking and the care and preparation beforehand.—Prof. De Lomb.

APPENDICITIS.

Prof. Nothagel, the eminent clinical professor at Vienna, has recently said that the great majority of cases of appendicitis run a simple course and get well under purely medical treatment. At least 80 per cent. of the cases recover in this way. He further says that no purgatives, but opiates should be given. The attending physician should not be uneasy if his patient does not have a movement of the bowels for six or eight days.—“*Lancet*.”

Dr. Negro, of Turin, has succeeded in curing 100 out of 113 cases of sciatica by digital pressure over the painful part. His method is as follows:—The patient assumes ventro-decubitus with extremities well extended and abducted. This secures relaxation of the muscles around the canal from which the sciatic nerve emerges and facilitates locating exactly the seat of the pain. On the painful spot the end phalanx of the right thumb is

super-imposed, and aided by that of left thumb is pressed firmly and with all possible force for fifteen or twenty seconds, and pressure is repeated for some length of time after an interval of a few minutes. The patient is then usually able to walk, and at times is free from pain. The entire procedure is repeated in two days. In the majority of cases six treatments are sufficient.

DRAW YOUR OWN CONCLUSIONS.

A certain French king, seeing at court a man said to be very like him, blurted out: “You are very like our family; is it possible that your mother was much at court?” “No, sire,” said the man; “but my father was.”—“*Monthly Retrospect*.”

THE TREATMENT OF SUPPURATION BY BICARBONATE OF SODA.

Brucker (These de Bordeaux) has made a study of a fact observed by himself, namely, the influence of the reaction of the blood in the healing of certain conditions. Bearing in mind that the normal alkalinity of the blood shows important variations according to sex, age and as to whether the blood is arterial or venous in origin, and the diet to which the patient has been addicted, and that in certain pathological conditions these variations are very marked, so that a reduction in the normal alkalinity is observed in certain cases of febrile reaction due to bacterial intoxication, he has found that certain artificial intoxications can be combated by raising the alkalinity of the blood by the injection of alkaline serum. Going on these grounds, Brucker has principally investigated the influence of alkaline dressings in the treatment of local inflammatory affections, and according to his observations such a dressing, whether moist or dry, very rapidly reduces the inflammation, suppurative or otherwise, and causes rapid healing of wounds. This seems independent of any antiseptic property in the proper sense of the word. The method employed by him is to apply the

dressing of absorbent wool on ordinary principles, using merely a 2 per cent. solution of bicarbonate of soda or in some cases vaseline and bicarbonate (1 in 25), or the soda may be applied directly in the form of a powder. He finds that strong solutions do not act more quickly than a 2 percent., showing that the chief agent is the alkali, and not any antiseptic principle. The same method may be applied for purulent otitis, etc.—“*Brit. Med. Jour.*”

OIL IN URINALS.

It has been found that if urinals are coated with heavy oil, the urine leaves no traces or odor as it runs off (*Journal d'Hygiene*). The 178 public urinals in Vienna are treated in this way, with satisfactory results, saving the city \$30 a year for the water supply of each. Many other European cities have already adopted the use of oil for this purpose. The urinal is scrubbed with a broom and plenty of water once a week or fortnight. When it is quite dry it is painted with thick mineral oil, obtained by distilling petroleum. Another system has a permanent syphon supply of oil.—“*Jour. Am. Med. Assoc.*”

A case of excessive venery in a boy of 13 years is reported to the “*Louisville Medical Monthly*” by Dr. Leon Solomon, assistant in pediatrics in the Kentucky School of Medicine. The boy said that for more than a year he had been regularly indulging in sexual exercise, first with one, and later with four young girls, ranging in years from 12 to 16. They would come to him singly and in pairs, and beg for gratification, to which demand he acceded, when he was able, and as often as he was able. How one of his tender years could accomplish so severe a task is the wonder, yet it seems, according to the Doctor's account, he was ordinarily equal to the demands of the occasion.—“*Monthly Retrospect.*”

THE USEFUL LEMON.

The relations of fruit to digestion are particularly interesting. Perhaps the most important is the influence of the

juices of fruits upon germs. Fruit juices are disinfectants, they are germicidal. The juice of the lemon is as deadly to cholera germs as corrosive sublimate, or sulphur fumes, or formaldehyde, or any disinfectant. It is so powerful a germicide that if the juice of one lemon be squeezed into a glass of water, that is then left standing ten or fifteen minutes, the water will be disinfected; it makes little difference where the water has been obtained, or whether it has been boiled or filtered. This is a fact worth knowing, for any of us may find himself under circumstances in which it is impossible to get either boiled or filtered water. In such a case, the juice of a lemon will purify the water perfectly.

BANANAS AS A FOOD FOR TYPHOID PATIENTS.

After a long experience with typhoid patients, a foreign specialist maintains that the best food for them is the banana. He explains by stating that in this disease the lining membrane of the small intestines becomes intensely inflamed and engorged, eventually beginning to slough away in spots, leaving well-defined ulcers, at which places the intestinal walls become dangerously thin. Now, a solid, if taken into the stomach, is likely to produce perforation of the intestines, dire results naturally following, and this being the case, solid foods, or those containing a large amount of nutritive substances, are to be avoided as dangerous. But the banana, though it may be classed as a solid food, containing, as it does, some 25 per cent. nutrition, does not possess sufficient waste to irritate the sore spots; nearly the whole amount taken into the stomach is absorbed, giving the patient more strength than can be obtained from other food.

SALICYLIC ACID IN RHEUMATISM.

Husson (“*Rev. de Therap.*”) employs the following formula when he wishes to introduce salicylic acid through the skin of a patient who is suffering from rheumatism:—

R.	Ac. salicylic pulv.	3j.
	Ol. terebinth....	3j.
	Lanoline....	3viij.

The skin is first to be cleansed with soap and water, but is not to be shaved, as the pulling upon the little hairs favours the introduction of the remedy through the skin. Friction should last for at least five minutes. After the friction is over the limb should be wrapped in cotton in order to preserve an even temperature. Treatment is to be repeated daily. One inconvenience of this method of administering salicylic acid is the desquamation of the epidermis, on account of the solvent action of the acid upon the cornified layer. However, this desquamation does not occur until five or six days have passed, and by that time the therapeutic effect of the drug has usually been fully realized. At any rate, desquamation is not painful, and treatment should not be suspended for this cause. This method of administering salicylic acid is rapidly gaining favour on account of the annoying gastric complication which so often follows the ingestion of the drug or its compounds.

VENTILATION OF DRAINS.

The old system of ventilation of each private drain by taking a branch pipe from the sewer side of the interception trap up to and above the top of the building, is good by just so much as it returns to the former systems of natural and local ventilation, but leaving the interception trap in each private drain forms a catch bag, and often retaining the solids of the sewage that passes through them, in a short time chokes the private drain and totally disorganises the house sanitary appliances. It also spoils and destroys the ventilation of the house soil-pipes, because when there is any interception between the street sewers, and the terminating end of the soil-pipe above the roof, it prevents the warm air of the street sewers from constantly moving upwards through the vertical soil-pipe and carrying along with it any foul gases that might generate in the waste-pipes. To rely upon an upward circulation through a breather pipe placed at the foot of a house drain often fails altogether, because the current of air is sometimes changed to pass down

from the roof to the ground line in place of passing upwards, first by the sewage passing down the soil-pipes and carrying down large volumes of air with it, which is discharged at the ground line by the breather; second, then very often the breather pipe is not in working order through being choked; and third, by the variations in the temperature.—Health.

THE VALUE OF SPINACH.

Spinach is claimed to be the most valuable of vegetables. Its emollient and laxative nature, from the salts of potash it contains is well known. It influences the liver and brightens the complexion, while iron abounds in appreciable quantities. Bunge, the chemist, avows that spinach and the yolk of egg are simply unrivalled for their assimilable and digestive powers.

LIBRARY TABLE.

Contracted foot, by B. E. McKenzie, M. D., and H. P. H. Galloway, M. D.

The Arthopedic aspect of diseases of the nervous system, by Drs. McKenzie and Galloway, Toronto.

Anderson's physical education.

Course and management of cataract, by J. H. Woodward, B. S., M. D., New York.

Renal suppuration and diagnosis, by T. H. Manly, M. D., New York.

Surgical treatment of Uterine Myomata, by H. O. Murey, A. M., M. D., L. L. D., Boston.

Diarrhoea and Bacteria, by Charles D. T. Adron, M. D., Detroit.

Christian Science, by C. T. Reid, A. M., M. D., Cincinnati.

Sources of failure in treating lachrymal obstruction, by L. Conner, A. M., M. D., Detroit.

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Professor of Principles and Practice of medicine, and Clinical medicine.

R. Johnston Blanchard, M. B., C. M., Edin. University; member of the medical staff, Winnipeg General Hospital.

Professor of Surgery and Clinical Surgery.

H. H. C. White, B. A., M. D., Queen's University; L. R. C. P., London. Member of the medical staff of the Winnipeg General Hospital.

Professor of Clinical Surgery.

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R. M. Simpson, M. D., C. M., University Manitoba; L. R. C. P., Edin; L. R. C. S. Edin; L. F. P. & S., Glasgow;

F. R. G. S., London; member of the medical staff, Winnipeg General Hospital.

Professor of Principles and Practice of Medicine.

W. J. Neilson, M. D., C. M., member of the medical staff, Winnipeg General Hospital.

Professor of Anatomy.

E. S. Popham, M. A., Victoria; M. D., C. M., Univ. Man., member med. staff, Winnipeg General Hospital.

Professor of Obstetrics.

E. W. Montgomery, B. A., M. D., C. M. Univ. Man., member med. staff, Winnipeg General Hospital.

Professor of Physiology.

J. S. Gray, M. D., C. M., McGill; member of the medical staff, Winnipeg General Hospital.

Professor of diseases of women and children.

W. A. B. Hutton, M. D., C. M., University Manitoba. Lecturer Pharmaceutical Association.

Professor of Chemistry, General and Practical.

J. O. Todd, M. D., C. M., University of Manitoba.

Professor of Surgery.

Demonstrator of Anatomy

Gordon Bell, B. A., Toronto Univ.; M. D., C. M., Univ. Manitoba.

Professor of Bacteriology, Pathology and Histology.

W. S. England, M. D., C. M., McGill; member of the medical staff, Winnipeg General Hospital.

Demonstrator of Anatomy.

J. A. McArthur, M. D., C. M., McGill. Professor of Medical Jurisprudence and Toxicology.

James Patterson, M. D., C. M., McGill; member of the medical staff, Winnipeg General Hospital.

Emeritus Professor of Hygiene.

A. Holmes Simpson, M. D., C. M., University of Manitoba.

Professor of Materia Medica and Therapeutics

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