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Original Articles.

MEDICAL INSPECTION OF SCHOOLS.*

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There are four periods in the history of any reform. First of all, everyone is indifferent, and the reformer can scarcely get a hearing. This is the period of apathy. Secondly, people are roused against the reform and make efforts to suppress the reformer. This is the destructive period. Thirdly, the reformer makes some converts and they help him. This is the period of agitation and education. Finally, the reform is accepted, and becomes part of the recognized order of things. This is the constructive period, or period of organization. And we see, at home and abroad, this reform, the Medical Inspection of Schools, passing through all these periods. Germany and Japan have been for some time in the fourth period. Great Britain as a whole entered on it with the Education Act of 1907. On this side of the sea we have all four periods represented both in the United States and in Canada. The most progressive places, such as Hamilton, Montreal, New York, and Boston are in the fourth period, and the rest of us are in one or other of the earlier periods.

In Hamilton, Dr. Roberts, the City Medical Health Officer, is Medical Inspector of Schools, and there is also a school nurse who entered on her duties Jan. 1, 1908, Miss Deyman. In Montreal in December, 1907, the City Council appropriated \$1,500.00 to pay the salary of the School Nurses, who also began work on January 1st, 1908, and \$11,000.00 to pay the salaries of 50 School Doctors, two of whom are women. Vancouver, Halifax, Ottawa, Brantford, and other places are moving in the same direction.

*Read at meeting of Ontario Medical Association.

No one will deny that wherever State education exists the medical profession must be recognized, sooner or later, as having a definite place and part in such education. We should be, through our representatives, an integral part of the school system. We can do for the rising generation what no one else can do. The Board of Education needs a medical adviser as truly as it needs a legal adviser. The Minister of Education should have a medical officer as one of his staff, as the President of the Board of Education in the British Government now has Dr. Newman and Dr. Eichholtz.

What, then, are the duties of the medical officer to any education authority? *What does medical inspection of schools mean?*

The School Medical Officer must be competent to advise the education authority as to the school itself:

1. The location of the school building.
2. The size and position of the playground.
3. The arrangement of the class rooms.

Each unit should approach as nearly as possible the ideal, 15 x 25 x 30. The desks should be separate and either adjustable or different suitable sizes, arranged, say, in six rows of seven each, thus favoring good healthy postures. The light should be from the children's left, and the left wall should be nearly all glass. A few high windows may be placed in the rear wall, and the broad aisle should be at the right, so that the desks are all near the light.

There are four other things that everyone knows about. As a rule, the school is not remarkable for:

1. Its pure air.
2. Its cleanliness.
3. Its comfortable temperature (65 to 68 degrees).
4. Its good water supply.

The School Medical Officer may be expected to create a powerful public opinion among the school population on these few broad, elementary, essential requirements of a healthy life. Pure school air and a really clean schoolroom no one has yet given us. But the School Medical Officer will do it.

This is only one part. It is, after all, the *child* who is the centre of interest. We should know whether height and weight correspond with the proper average for the child's age. The general nutrition, the cleanliness or its lack, the teeth, the nose and throat, with special attention to the tonsils, adenoid growths and enlarged glands, the sight, hearing, speech, and mental condition should all be observed. Finally, any disease or deformity claims special attention, and transmissible disease of any kind is most important to detect,

not only for the child's own sake, but for the sake of the other children, the teacher, and the community.

These points must be accurately recorded, and perhaps the best available schedule, on the whole, is that issued by the Board of Education from Whitehall, with Circular 582, on January 23rd, 1908, and published in the *British Medical Journal* on February 8th, 1908. It is intended to be printed on 5 x 8 cards of the card index system, and is arranged to record four inspections.

The most favorable time to examine children is certainly when they apply for admission to school for the first time. It is then comparatively easy to secure the presence and co-operation of the parent, and much can be done in early childhood which it is too late to attempt even at the age of 12 or 14 years. Children go to school too young, but at present we must make the best of this, and there is one great compensation in the help that we can give them at an early age.

The child should be seen again on any indication of illness, and certainly should also be seen again about 12 years of age, and once more in the last year of school life.

The School Medical Officer should also pay attention to vaccination.

These are all reasonable things, and have commended themselves to the common-sense of the world. The exact method of working out the details may be best left in the hands of those who are actually engaged in the work. That is their business, and it is their duty to attend to it. The system should be allowed to grow and adjust itself to the needs of different communities. It may be said, however, that experience has a great tendency to simplify records and details.

It is generally agreed that the School Medical Officer should not undertake treatment, except in so far as to direct the work of the School Nurse. Those able to pay should at once call in the family physician, and those unable to pay must be provided for in connection with hospital clinics or otherwise, if the case cannot be taken charge of by the School Nurse.

The qualifications, mode of appointment, and remuneration of the School Medical Officer form an important group of questions for our discussion.

The qualifications required are numerous. We must, first of all, have good professional qualifications, especially a facility in diagnosis. It is a great mistake to appoint young doctors who have just graduated, except as junior assistants. We need experienced men and women who know something about children and a good

deal about children's diseases, something about schools, a good deal about general hygiene, and something of the world.

The mode of appointment differs in different countries. In some places the chief sanitary authority, for example, the County or City Medical Health Officer, is required or expected, often with little or no remuneration, to undertake the work. This is manifestly unfair, and, moreover, it is possible that an excellent Medical Health Officer, specially trained in sanitary science, might not be the best person to appoint as School Medical Officer and deal with the diseases and defects and general physical welfare of school children.

In the first circular issued on the subject by the British Government, published in full in the *British Medical Journal* of November 30th, 1907, it was advised that the work should be organized under the Local Medical Officer of Health. To this advice exception was taken by the medical profession, the *British Medical Journal*, and by the lay press, especially *The Times*, in a leader published November 25th, 1907. Two things seem clear. Unless the Medical Health Officer is appointed, then the School Medical Officer, whether he is formally appointed as one of the assistants of the Medical Health Officer or not, must be in close touch with him, and should work in constant harmony with him. In many cases, both in Britain and Canada, we know that the Medical Health Officer would be the ideal appointee as School Medical Officer. Perhaps in other cases he might not.

On the other hand, as the work of the School Medical Officer is done under the direction of the School Board, and as they should pay him a reasonable and proper salary for it, then the appointment should rest with them, and they should appoint the best available physician for the work.

As to the question of remuneration, the Council of the British Medical Association has dealt with the matter and advised that the School Medical Officer be paid at the rate of £50 a year for an attendance of half a school day a week, half a school day being defined as two hours. If whole-time appointments are made, they consider that competent officers will not be attracted for a less salary than £500 per annum. It costs more to live in Canada than in Great Britain. Of course, much must depend on the time taken to examine each child. There seems to be a general feeling that not more than twelve can be examined in an hour, on an average, but that there will often be special cases requiring fifteen minutes or half an hour. Some English authorities have arranged to pay at

the rate of one shilling for each child examined, and School Nurses are paid from £120 to £150 per annum.

Mr. McKenna, President of the Board of Education, received a deputation in March, 1908, from the Association of Municipal Corporations, who represented that the treasury should make a grant to defray the cost of the medical inspection of school children. Further interesting particulars in regard to this may be ascertained by consulting the *British Medical Journal* for March 28th, 1908, and, indeed, it shows the importance of this subject that the *British Medical Journal* seems now to have a new department, often occupying about a page, headed Medical Inspection of Schools.

This question of remuneration deserves our serious attention. There was a good discussion of Medical Inspection of Schools in the Inspectors' Section of the Ontario Educational Association last Easter. The paper, an excellent one, was presented by Inspector Chapman, of Toronto, and it was well received. But the President of the Section made this significant remark: "I am just afraid that the Doctor would get for his few visits as much as the teacher would get for teaching the whole year." Teachers are not paid as well as they should be, but neither are doctors. We must try to look at the question from both points of view.

Co-operation of

1. *The school-child and the parent.*
2. *The teacher and other education authorities.*
3. *The School Nurse, School Medical Officer, and other medical authorities.*

When the School Medical Officer enters the schoolroom, which, it seems to me, he or she should do not infrequently, and as a welcome visitor, a visitor who can soon make himself welcome, he enters as our representative, on a new and very promising field of work, and one where we, as physicians, must adapt ourselves to new relations. In the hospital the doctor's word is law. In the sick-room the patient almost feels as though we held in our hands the power of life or death. But in the school-room the teacher's word is law. We are there only because we can help the teacher. The teacher has the power. And we must use infinite tact and pains not to disturb the atmosphere of study and quiet discipline which is the life of the schoolroom. We must cultivate the most cordial and friendly relations with the teacher, taking him or her into our confidence, and relying upon him as our most powerful ally. And we must aim to secure the good-will and confidence and

active assistance of the child. Our aim is to make the child strong, healthy and happy, but the school-child in turn can help us. Mr. Joseph Chamberlain, in 1893, utilized the school-child in Africa as a sanitary reformer, and through the school-child popularized in a few days the scientific means of preventing malaria, which otherwise would not have been effective in a whole generation. In Liverpool recently, under the direction of the Medical Health Officer, Dr. Hope, the teachers explained to the children in school about the census returns, especially in regard to tuberculosis, and the benefit of this work was immediately seen, for the returns were better filled out than ever they were before. In this connection, it should also be stated that the school nurse is a most important link between the doctor, the school, and the home. In New York, where 10,000 children had to be excluded before the advent of the School Nurse, only 1,000 needed to be excluded when she was there to care for the child, to visit the home, to suggest, and relieve and plan, and assist the home people in cleansing or caring for the school child, who would otherwise have been kept, sick, dirty, and forlorn, outside the school, which is the pleasantest place such a child ever enters. The School Nurse is indispensable in a scheme of medical inspection of schools.

Another important point remains to be considered, namely: How is the teacher to have access to the store of knowledge at the command of the School Medical Officer and other medical experts? Those familiar with teachers in training at our Normal Schools and elsewhere cannot but know that many of them are ignorant of the laws of hygiene. To them the brilliant victories of modern medicine over disease and death are all unknown. In some way or other, by giving in our Normal Schools an inspiring, modern, progressive and thoroughly scientific course on preventive medicine and school hygiene, we should recover lost ground, for you know that even the small provision made for such teaching in our Normal Schools has been almost swept away. Experts should also give from time to time lectures and general talks relating to local sanitary questions, delivered preferably in the schools, and arranged for teachers and parents.

Results of School Medical Inspection.

These have been uniformly gratifying. Where the system has been given a fair trial it has never been abandoned. The School Nurse, the School Bath the Open Air School, all these good movements are the result of medical inspection of schools. With the help of the pathologist, and by dint of the study of milk supplies, and finally by the aid of the school doctor, we have arrived at the

conclusion that tuberculosis in many instances is contracted in childhood, latent in youth, and evident in adolescence. Rightly viewed, these facts, and the placing of them in their proper relation to the whole modern, hopeful, scientific—but not panicky—view of tuberculosis before our teachers, and through them before the school population, will aid wonderfully in preventing the White Plague.

Great attention has likewise been directed to the fact, which we all knew before, that food and air make children grow. In Glasgow 73,000 children were examined and then classified according to the size of the home they lived in. Here are the averages:

	Height.	Weight.
One room	46.6	52.6.
Two rooms	48.1	56.1
Three rooms	50.0	60.6
Four rooms	51.3	64.3

The lesson is plain. If the *country* is not to suffer these children must be fed. Someone must do it, if the parents really cannot. The School Doctor has proved over and over again what the good teacher has known a long time—that unfed children cannot learn. Unless we are to waste some of the enormous sum spent on public education, these children must somehow be fed. And there are unfed children in Ontario. I can show you a school in Toronto where the head mistress has for years, and wisely, provided dinner in winter.

A great improvement has taken place in the seeing, the breathing, and the teeth of thousands of children since the School Doctor came. The School Doctor has been the best friend that the mentally defective child ever had.

Finally, in regard to contagious diseases, it would be difficult to estimate how many lives have been saved.

In Chicago, for the week of November 23rd, 1906, there were 150 cases of diphtheria and 109 of scarlet fever. There were no Medical School Inspectors then. There were only 117 cases of diphtheria and 89 of scarlet fever in the corresponding week of 1907, when there were Medical School Inspectors, and the weekly *Bulletin* says: "The value of School Medical Inspectors in staying the headway of epidemics is in evidence almost daily. The work of the Medical School Inspectors has not only stayed the threatened epidemics, but is decreasing the number of such diseases at a time and under conditions favorable for the extension of infectious diseases."

Circular to Local Education Authorities.

Schedule of Medical Inspection.

Circular 582.

Letters should be addressed—"The Secretary, Board of Education, Whitehall, London, S.W.," and should show the complete postal address and designation of the writer.

BOARD OF EDUCATION,

WHITEHALL, LONDON, S.W.,

23rd January, 1908.

EDUCATION (ADMINISTRATIVE PROVISIONS) ACT, 1907, SECTION 13.

SIR,—

1. The accompanying Schedule has been drawn up in response to requests which the Board of Education have received for further and more definite guidance as regards the details of the work of medical inspection than was given in the Memorandum (Circular 576) which was issued by the Board on 22nd November, 1907. The Board have, indeed, been pressed by many local education authorities to issue a complete set of Forms for use in carrying out the work directly or incidentally involved in the performance of these new duties. Any Forms which experience of the working of the Act may show to be necessary or desirable will be issued in due course, but for the present the Board think it expedient to leave considerable latitude, subject to the considerations hereinafter set out, in regard to the particular Forms or Schedules to be used in different cases or circumstances.

2. The chief difficulties to be considered are administrative rather than educational or scientific. There is comparatively little dispute as to the end in view, or as to the means which, from the technical standpoint of medical science and practice, should be adopted for its complete attainment.

But the existing resources of Local Education Authorities are (for practical purposes, at all events) not unlimited, the feelings and prejudices of parents have to be considered, and a new element has to be introduced into school life and organisation with the least possible disturbance and inconvenience. Moreover, in this case two departments of local public administration are brought for the first time into organic connection—those of public health and of public education.

3. The Board are fully aware of these difficulties, and in preparing their Memorandum and Regulations it was necessary for them to consider what system would best reconcile the theoretical

and practical considerations, and overcome the divergence between the ultimate end and the end immediately attainable, or between the methods which are scientifically desirable and those which can be applied in existing circumstances at the initiation of the work under the Act.

4. In the accompanying Schedule the Board indicate the particulars, attention to which they regard as constituting the *minimum* of efficient medical inspection, and they consider that at least these particulars should be included in any other Schedule which the Local Education Authority may authorise for use in their Schools. It deliberately excludes many points of anthropometric or statistical interest which are worthy of attention, and which it is hoped may receive attention in suitable districts. Nor does it profess to lay down the lines of a clinical study or of a scientifically complete medical examination. It is intended to indicate the methods which, in the Board's opinion, should be followed and the particulars which should be attended to for the purpose of determining the fitness of the individual child for school life, to guide the Authority in adapting education to the peculiarities or abnormalities of the child, and to prepare the way for measures for the amelioration of defects in the child or its environment.

A more elaborate and complete form could readily be devised, but the Board's knowledge of the circumstances in which the work is to be done leads them to believe that greater elaboration would in the majority of cases defeat its own end.

5. If this Schedule is properly used, few cases of serious physical weakness or defect will escape detection. Where the ordinary inspection shows the need of further and more searching medical examination, a supplementary blank form should be used in which particular defects or diseases should be fully recorded. It may facilitate inspection if the Schedule is printed on cards* (8 in. by 5 in. or 10 in. by 6 in.). The Notes are included in the attached form for the convenience of the School Medical Officer, and should not be reprinted on the cards. Of course, it is not necessary that negative findings on all the points mentioned in the Notes should be recorded.

It will be noticed that a space is reserved in the Schedule for "General Observations"; this may conveniently be used to record a general summary of the condition of the child, and any information which may be available as to the home environment, or other conditions affecting its health.

* Specimen cards are enclosed, but cards will not be supplied with the copies of this Circular, which are placed on sale.

It is considered that the inspection of each child should not occupy on the average more than a few minutes, and that the child need only, as a rule, have its clothes loosened or be partially undressed. Time may be saved in the actual inspection by the Medical Officer if the entries in some of the spaces are filled in by the school authorities before his visit. The four columns in the Schedule are designed for the four inspections required during school life.

With regard to items 17 to 24 of the Schedule, while it is necessary that all indications of diseased or unsound conditions should be thoroughly investigated, needless medical examination of healthy children should, for obvious reasons, be avoided.

6. Where children are found to belong to that class of "defectives" for whose education special provision is or ought to be made under the Statutes relating to such children, such cases should be made the subject of a special report to the Local Education Authority.

7. *All entries of the results of inspection in each individual case must be regarded as confidential.*

I have the honour to be, Sir,

Your obedient Servant,

ROBERT L. MORANT.

To the Local Education Authority.

NOTES FOR INSPECTING OFFICER.

Reference
Number
of Note.

1. Date of birth to be stated exactly, date of month and year.
2. "Other illnesses" should include any other serious disorder which must be taken into account as affecting, directly or indirectly, the health of the child in after-life, *e.g.*, rheumatism, tuberculosis, congenital syphilis, smallpox, enteric fever, meningitis, fits, mumps, etc. The effects of these, if still traceable, should be recorded.
3. State if any cases of, or deaths from, phthisis, etc., in family.
4. Note backwardness.
5. Age to be stated in years and months, thus, 5 4-12.
6. Insufficiency, need of repair, and uncleanness should be recorded (good, average, bad).
7. Without boots, standing erect with feet together, and the weight thrown on heels and not on toes or outside of feet.

Reference
Number
of Note.

8. Without boots, otherwise ordinary indoor clothes.
Height and weight may be recorded in English measures if preferred. In annual report, however, the final averages should be recorded in both English and metric measures.
9. General nutrition as distinct from muscular development or physique as such. State whether good, normal, below normal, or bad. Under-nourishment is the point to determine. Appearance of skin and hair, expression, and redness or pallor of mucous membrane are among the indications.
10. Cleanliness may be stated generally as clean, somewhat dirty, dirty. It must be judged for head and body separately. The skin of the body should be examined for cleanliness, vermin, etc., and the hair for scurf, nits, vermin, or sores. At the same time ringworm and other skin diseases should be looked for.
11. General condition and cleanliness of temporary and permanent teeth, and amount of decay. Exceptional features, such as Hutchinsonian teeth, should be noted. Oral sepsis.
12. The presence or absence of obstruction in the naso-pharynx is the chief point to note. Observation should include mouth-breathing; inflammation, enlargement, or supuration of tonsils; probable or obvious presence of adenoids, polypi; specific or other nasal discharge, catarrh, malformation (palate), etc.
13. Including blepharitis, conjunctivitis, diseases of cornea and lens, muscular defects (squints, nystagmus, twitchings), etc.
14. To be tested by Snellen's Test Types at 20 feet distance (= 6 metres). Result to be recorded in the usual way,

$$\frac{6}{6}$$
e.g., normal V. = —. Examination of each eye (R. and L.) should, as a rule, be undertaken separately. If the

$$\frac{6}{9}$$
 V. be worse than —, or if there be signs of eye strain or headache, fuller examination should be made subse-

Reference
Number
of Note.

- quently. *Omit vision testing of children under 6 years of age.*
15. Including suppuration, obstruction, etc.
 16. If hearing be abnormal or such as interferes with class work, subsequent examination of each ear should be undertaken separately. *Apply tests only in general way in case of children under 6 years of age.*
 17. Including defects of articulation, lisping, stammering, etc.
 18. Including attention, response, signs of overstrain, etc.
The general intelligence may be recorded under the following heads: (a) Bright, fair, dull, backward; (b) mentally defective; (c) imbecile. *Omit testing mental capacity of children under 6 years of age.*
 19. Under the following headings should be inserted particulars of diseased conditions actually present or signs of incipient disease. The extent of this part of the inspection will largely depend upon the findings under previous headings.
 20. Include heart sounds, position of apex beat, anæmia, etc., in case of anything abnormal or requiring modification of school conditions or exercises.
 21. Including physical and clinical signs and symptoms.
 22. Including chorea, epilepsy, paralyses and nervous strains and disorders.
 23. Glandular, osseous, pulmonary, or other forms.
 24. State particular form, especially in younger children.
 25. Including defects and deformities of head, trunk, limbs. Spinal curvature, bone disease, deformed chest, shortened limbs, etc.
 26. Including any present infectious, parasitical or contagious disease, or any sequelæ existing. At each inspection the occurrence of any such diseases since last inspection should be noted.
 27. Any weakness, defect or disease not included above (*e.g.*, ruptures) specially unfitting child for ordinary school life or physical drill, or requiring either exemption from special branches of instruction, or particular supervision.

SCHEDULE OF MEDICAL INSPECTION.

I.—Name Date of Birth¹
 Address School

II.—Personal History :

(a) Previous Illnesses of Child (before admission).

Measles.	Whooping Cough.	Chickenpox.	Scarlet Fever.	Diphtheria.	Other Illnesses. ²

(b) Family Medical History (if exceptional).³

	I.	II.	III.	IV.		I.	II.	III.	IV.
1. Date of Inspection.....					13. Ear disease ¹⁵				
2. Standard and Regularity of Attendance ⁴					14. Hearing ¹⁶				
3. Age of Child ⁵					15. Speech ¹⁷				
4. Clothing and footgear ⁶					16. Mental condition ¹⁸				
III.—General Conditions.]					[V.—Disease or Deformity.] ¹⁹				
5. Height ⁷					17. Heart and circulation ²⁰ ...				
6. Weight ⁸					18. Lungs ²¹				
7. Nutrition ⁹					19. Nervous system ²²				
8. Cleanliness and condition of skin ¹⁰					20. Tuberculosis ²³				
Head					21. Rickets ²⁴				
Body					22. Deformities, Spinal Diseases, etc. ²⁵				
IV.—Special Conditions.]					23. Infectious or contagious disease ²⁶				
9. Teeth ¹¹					24. Other disease or defect ²⁷				
10. Nose and throat ¹²									
Tonsils									
Adenoids									
Submax and cervical glands									
11. External eye disease ¹³									
12. Vision ¹⁴									
	R.				Medical Officer's initials				
	L.								

General observations.

Directions to Parent or Teacher.

DISCUSSION.

DR. JAMES ROBERTS, M.O.H. (Hamilton, Ont.).—It is now little more than a year since our first systematic attempt was made at medical inspection of schools in this city, and even with the limited resources and facilities at our disposal for the carrying on of the work I think we can truthfully say that the results have been somewhat gratifying. Until recently our school inspection was limited to the control of communicable diseases, and, as I pointed out in my annual report, it is simply remarkable how much can be accomplished along this line with the assistance and co-operation of the teachers alone. When I undertook, at the request of the Board, of Education, something over a year ago an inquiry into the physical conditions of our school children, I was somewhat doubtful as to the urgency of this work in a city of our population and social characteristics. It is not difficult to unhesitatingly concur in the findings of those who have investigated conditions as they exist in the large and intensely congested centres, and I must confess that only personal investigation could ever have convinced me of the great importance of an early recognition on the part of the authorities and the public in general that the health of our school population is not all that could be desired. The multitudinous duties of a Health Officer in a city of even this size rendered it impossible for me to do more than merely touch the fringe of the work.

For some months past our school nurse has devoted her whole time to it, and has proved herself a capable and intelligent inspector. I am glad to be able to say that there has been at all times the heartiest co-operation with our department. Communicable diseases were never more promptly and completely recorded—the exclusion of these where present in school never so thorough, and a great many defects have been pointed out to parents—a considerable proportion of which have been remedied.

We have been able to accomplish a great deal toward the eradication of pediculosis, scabies, impetigo, ringworm, etc., which exist to an extent unrealized by those not specially interested in the subject. Our teachers concede that as a result of inspection in personal cleanliness, tidiness, and general morale of the pupils, we have gained a great deal. The establishment of a dental infirmary, which would do something for the deplorable condition of the 75 per cent. of school children's mouths is greatly to be desired, as is also some provision whereby defects in vision, which even on rough examination are found to exist to a surprising extent, may be remedied. Just at this point arises our chief difficulty. On all sides this school inspection is looked upon as a good thing. All

popular expressions of opinion favor it, and yet the necessary financial assistance to make it practical in results seems to come grudgingly. Where the excuse for this exists I have not been able to ascertain.

Our public men point with pride to increased expenditures in the cause of education, increases which may be largely wasted because we do not take into account the physical peculiarities of the boys and girls who, perhaps, are being tortured rather than educated. Once let an intelligent boy realize that the possession of a good set of teeth by him is of so little moment to the body politic, that it isn't worth a trifling expenditure on his behalf, and the conclusion that it doesn't matter much to anybody whether or no he becomes a saloon frequenter, gets drunk or goes to jail is not so illogical as it may seem. "Apathy," not malice prepense, seems to reconcile us to the strange irony of life that the expenditure which is denied in order to find out the mental and physical capabilities of a child is readily sanctioned for an education ill adapted to his needs and for the administration of criminal justice. "Apathy" it must be that allows without protest deliberations over railways, power and light schemes, and corporation franchises to consume almost the entire time of our municipal and parliamentary representatives to the exclusion of housing problems, sanitation of streets and public conveyances, parks and playgrounds, and the thousand and one other little considerations which contribute so materially to the public health, the comfort and well-being of the great mass of the people.

"Fully 25 per cent. of the deaths in the community," says Osler, "are due to this accursed 'apathy,' fostering a human inefficiency, and which goes far to counterbalance the extraordinary achievements of the past century. Why should we take pride in the wonderful railway system with which enterprise and energy have traversed the land, when the supreme law, the public health, is neglected? What comfort in the thought of a people enjoying great material prosperity when we know that the primary elements of life (on which even the old Romans were our masters) are denied to them? What consolation does the "little red school-house" afford when we know that a Lethean apathy allows toll to be taken of every class from the little tots to the youths and maidens?"

Paton, in his recent work on Psychiatry, says: "The opinion of an expert is sought for in examining a new recruit, who is desirous of entering the ranks of the army or navy; and to-day the universities have physical directors to examine into and pass upon the

physical condition of students before they are allowed to compete in inter-collegiate sports. And yet at the same time a heterogeneous mass of humanity, without any form of selection, and utterly regardless of its fitness, is driven through a so-called education. Society at large must sooner or later awaken to the realization that the indiscriminate education of the masses cannot be too strongly condemned, for excessive demands upon the brain power of a community must ultimately lower not only the intellectual, but also the moral standards. Even with the crude and imperfect methods now used by the alienist, if the opportunity were given to him to apply his tests, it would be possible greatly to reduce the numbers of those who are seriously injured mentally and morally by a schooling ill adapted to their individual needs and necessities. Everyone admits that it is the duty of the physician to warn those with weak hearts or lungs not to overtax those organs. Is it not equally important that the mental welfare of the community be safeguarded? Only some men are born to be educated; how many more, unfortunately, have thrust upon them an education, which is disastrous not only to themselves, but also to the community at large?

To prevent the sins of over-educated fathers and mothers from being visited on the children unto the third and fourth generation is a problem of great sociological as well as economic importance to the State. The sudden expansion of mental powers may be quite as unfortunate as the sudden acquisition of riches, and the community that heedlessly imposes mental tasks indiscriminately upon the children in its Public schools adds greatly to the list, already appalling in length, of those who overtax the capacities of hospitals for the insane.

Gentlemen, only when we realize the truth of these observations by competent authorities will medical inspection rise as part of our school economy to its essential and proper proportions.

DR. ROBERT LAW (Ottawa).—I congratulate Dr. MacMurchy on her excellent paper, bringing forward this question which is now coming into prominence as a live matter, and consider that this matter will shortly be considered part of the regular routine of a Health Department's duties, and that the work should be under direction of Health Department.

In Ottawa the Health Officer has done such work as has been done; this was chiefly in control of contagious diseases, with the result that the schools have been kept free from any epidemic; and in throat inspection cases of scarlet fever and diphtheria have been removed from classes.

Teachers have been found allies in this work, and should be taken into account in any scheme of inspection, as the alert teacher, accustomed to the normal appearance of the child in health, will readily note any marked departure therefrom, and can notify Medical Officer.

The schools in Ottawa have been placed in first-class condition during the past five years through the employment of a permanent architect, who has made a special study of school sanitation.

I have recommended an outlay for medical inspectors to work with the Medical Health Officer, but the authorities have so far turned it down, owing to the plea of financial stringency. It will be necessary for us to show the authorities that it is a business proposition which will give an adequate return for outlay. The plan I proposed is to employ several inspectors to attend the schools at the opening of the fall term and examine all children, similarly examine any new-comers during term, and any cases referred to the officer by the teacher, or on the occurrence of any infectious disease. The inspector to be paid according to the amount of work done.

MEDICAL THOUGHTS, FADS, FACTS, AND FANCIES.

BY JAMES S. SPRAGUE, M.D., STIRLING, ONT.

You, no doubt, brother, have in quiet moments, and very frequently, too, thought what new specialty would arise to disturb our quiet, yet never-ending studies and researches. Dr. Waetzold has equalled, in fact has eclipsed, Dr. Gould, of Philadelphia, in extremism. While the distinguished lexicographer and oculist-biographer attributes numerous nervous ailments to "eye-strain," with equal learning and copious illustrations, Dr. W. claims "ear-strain" as the prominent factor, and we, country doctors—in fact all M.D.'s—will await their published claims for the prize—for leisure moments' reading, and for our sanction and authority, provided we consider them intelligent and adaptable.

To one who is observant, there are many evidences most pleasantly afforded of the tendency of many medical journals to discontinue their publications or to form an amalgamation in publication with some other similar journals. Equally noticeable is the

drift of medical colleges—mostly of the stock company order—towards suspension of business or to a unity with a well-endowed or state university. That these changes are for the best and honorable interests of medicine the student or observer will, at once, admit as stubborn facts.

We, who are readers of medical journals, admire such articles as Drs. Hunter and Powell present, and not least the classical writings of Dr. Fischer, who tells us of the glorious deeds of the Fathers in Medicine—a subject much neglected in our medical course.

Harvard, during very many years, has required of candidates for matriculation in medicine the Bachelor's degree in Arts or Philosophy, and Cornell recently has announced similar requirements for its M.D. degree. This announcement recalls the words "History repeats itself," for the student in Medicine will remember that several centuries ago Oxford and Cambridge required of medical students similar qualifications. That our Canadian universities and Provincial Medical Councils do not exact, and have not exacted, such matriculation requirements is not only lamentable, but disastrous to the respectability of medicine. Such is to me an established belief, proven by my careful study and inspection of more than 1,200 undergraduates and graduates, who were passing our Council's examinations and those of the University of Trinity College. The fact is this, and very evident to all interested in the progress and respectable standing of medicine, that there has been, and now is, unpardonable velleity on the part of our legislators and faculties in medical studies in reference to such preliminary requirements. Although to many, like myself, whose studies in Arts were totally distinct from association with medical subjects, the lately-arranged and combined courses, wherein either the B.A. or B.S. and Medicine are sought, although not ideal, are commendable, it would appear, to use a simile, like the present of the silver spoon for each one pound of baking powder. Another fact is, those who were not privileged to acquire either B.A. or B.S. or Ph.B., disassociated from medical studies, deserve the profession's highest esteem in the struggle for the acquirement of two degrees, and, too, well worthy that *cum honoribus* should appear on their parchments. Yes, *honor graduates* they are, and ever will be in our estimation, but we feel very weak, especially so when we notice in every country newspaper that nearly every dentist is an "Honor Graduate of Toronto University," and they, or each one of them, is a *doctor*. Another fact is, I do not think so much respect is contained in

doctor as when, in 1869, I received M.D., for our universities of late, to catch popularity and pennies, are multiplying faculties, and the *doctorate* is the bubble, beautifully colored and equally as empty, for the unwashed and inane aspirants. In time we will assume the plain *Mr.* and follow the example of Cameron. Not least, it has been my belief for many years that any university in catering to the whims of visionaries for faculties is dishonoring itself and the three learned professions and is doomed to dishonor. Are such "pipe dreams" ?

To have had an hour's pleasurable conversation with one of my professors and an ex-M. H. O. of Toronto, a writer of a medical text-book, a biographer of the earliest settlers of the Bay of Quinte district, an ex-surgeon of more than ordinary distinction of the U. S. army, etc., in a House of Refuge is not cheering to my thoughts or to those who may read this acroamatical gallimaufry. Such has been a recent event and proof that intemperance debases; however, in this instance, the inmate of the county's Refuge is self-supporting, although invalidated. Yes, brother, he is an ex-President of the Canadian Medical Association and author of the classical work, "The Biographies of Canadian Medical Men." *Magni nominis umbra.*

It is, in a sense, somewhat lamentable that we, who are prevented by various fates from attendance at our Provincial and Dominion Medical Associations, are benefited only by an occasional publication of an address, and as such able addresses appear at diverse times and in the authors' favorite journals the halo of glory of these annual gatherings is not apparent to absentees, but is fully enjoyed, personally exalting, encouraging, and honoring to not only city but the "four corners" licentiates in our ranks. One fact is this, that by yearly or more frequent associations with each other to compare experiences, to confirm old views or to abandon them, to have our egoism appear or to be silenced, or by association have moments for self-introspection and the renewal of old acquaintances not only frees "our minds from many silly notions," but makes us better citizens, and, most decidedly, better doctors. The benefits are innumerable and within the power of obtainment by all who hold progressive views and feel the responsibility of the doctorate.

Very few professors, I learn, have had experience in what is ordinarily termed "country practice," and when we consider the fact that nine-tenths of the number of students are from the country, and no doubt will engage in rural practice, it is to be regretted that said professors cannot and do not give lessons from experience as regards aretology, the ethics of practice, and other instruction in

which and by which their students would be benefited, for thus forewarned and instructed many more years of more efficient service to the community, financial results more encouraging, in fact, every benefit we pray for, would result from heart-to-heart talks about their future labors.

The so-called ethical medicine concerns, whose goods by every device, assisted by medical journals, are most disgustingly and too often introduced to us, have been and are our greatest enemies in every respect, especially so in the cleavage they have caused in our relationship to our next best friends—the honest druggists. However, reaction is setting in, and we are learning that the local druggist has enough on his shelves to meet our practical work—and also learning that the price lists are eclipsed by ethical and legitimate publications more deserving of our study and adoption—learning, too, that it is not professional to act as salesmen for non-ethical goods, even if, in our verdancy, we hang on our office walls their alluring and charming, yet disgraceful, picture cards. We, of all professional men, most assuredly are the most easily victimized, and an ordinary survey of our own daily life will most clearly, yet sorrowfully, prove this fact. Yes, the allowance by us of the work of the patent medicine concern or company to break up an ancient and honorable friendship existing between us and druggists, is dishonorable and disastrous, and those of us who take brief yet clear observations of the movements and designs of men can easily see the maelstrom to which we are drifting. To preserve our professional standing we must preserve our friendship with honest druggists—our best friends.

A TREATMENT FOR SPRAINED ANKLE.*

BY J. SHEAHAN, M.D., ST. CATHARINES.

When we speak of sprained ankle we understand an injury suddenly produced in that joint when its movements are carried beyond their normal physiological limits, or when the bones entering into its formation are deflected in some unnatural direction, without, however, producing actual dislocation. Then we find a stretching, or a partial rupture, or a complete rupture, of some of

* Read at the annual meeting of Ontario Medical Association at Hamilton.

the ligamentous fibres surrounding the joint, with injury to the synovial membrane and the tendons and tendon sheaths about it.

There are sprains by eversion, and sprains by inversion, the latter being more common. In sprains by eversion the foot is usually rotated outward at the tip, and flexed corresponding to the physiological movements. The ligaments on the plantar and inner surface of the foot are very strong, so that forced eversion or outward rotation is more apt to fracture the malleolus than to tear the ligaments, and possibly also to fracture the fibula, producing a Potts' fracture; however, less degrees of force do produce sprains of this character, with injury to the internal lateral or deltoid ligament. In sprains by inversion the foot is rotated inwards and extended (plantar flexion). If this happens without much inward rotation of the tip of the foot (adduction) the calcaneo-astragaloid ligaments and those below and in front of the external malleolus, and on the dorsal outer surface of the astragalo-scaphoid joint, are torn. The most frequent site of tenderness and ecchymosis is, therefore, below and in front of the external malleolus. On the other hand, if inward rotation (adduction) of the foot predominates, the joints between the calcaneum and cuboid and between the scaphoid and cuneiforms are more often contused, producing a sprain of the tarsus; the ecchymosis and tenderness is then farther forward.

Symptoms.

The injury is accompanied as a rule by pain, often of an intense throbbing character, and followed by more or less disability, swelling, heat and discoloration of the surrounding parts, even over the foot and leg. Peri-articular swelling is a marked and early symptom, because of the fact that the soft parts next the joint are not hidden under thick layers of muscle and fat.

Causes.

Injuries of this character may be caused by a variety of accidents.

The commonest are, falls, which either carry flexion or extension too far, or force the bones forming the joint in a wrong direction; or twists, such as occur when the patient suddenly turns about with the foot fixed.

Various conditions act as predisposing agents to sprains; amongst the most common are a previous injury of a similar nature, which leaves a weak joint behind; or a deformity or mal-union of a fractured tibia, which places the joint at a mechanical disadvantage and alters the normal line of transmission of the body-weight.

Lesions.

The actual lesion which occurs when the ankle joint is sprained varies considerably in different cases and is often difficult to determine accurately. The chief effect of the injury always falls on the ligaments, and they are damaged to a greater extent than any other structures of the joint; in fact, the degree of sprain is determined by the extent of injury to the ligaments.

In the mild forms the ligaments are merely overstretched; in others they may be torn from a small amount in the medium to an extensive degree in the severe injuries.

In the severe injuries the ligaments are torn across, or detached from the bone, opening the joint capsule; or portions of the bone, usually the tip of one or other malleolus, may be detached along with the ligaments.

Results.

The results of these injuries will vary with the severity of the lesions. The immediate effect is the occurrence of pain. Then swelling of the joint rapidly follows.

In the milder cases, when the ligaments are simply overstretched, there is comparatively slight swelling immediately after the accident, but a synovitis may subsequently occur and give rise to much trouble. In the more severe cases there is usually considerable effusion of blood at the time of the injury, and this will produce a certain amount of immediate swelling of the joint. This swelling is later increased by the occurrence of synovitis.

The remote effects of sprained ankle result partly from the synovitis and partly from the imperfect union that not uncommonly occurs in the torn fibres of the ligaments. The latter condition is especially troublesome later in the course of the case, and gives rise to that feeling of weakness which is so common a result of neglected sprains.

Unless the synovitis be actively treated it may lead to a permanent weakness of the joint from over-distension or from adhesions between various parts of the synovial surfaces, which, although fibrinous at first, may organize into fibrous tissue, and thus interfere with the proper movements of the joint.

It is also well to bear in mind that when there is considerable hemorrhage the blood is very slowly absorbed from the articular cavity, in which it remains fluid for a considerable time.

All sprained ankles, when the foot has been thrown out or everted, are liable to be followed by a weakened arch or the development of a valgus, so these sprains should be treated with the foot well thrown in, inversion, and later a proper lace shoe with an arch support should be worn.

The possibility also should be remembered that the torn ligament may fail to unite properly, because a portion of it projects into the joint and is nipped between the articular surfaces. This may give rise to serious disability.

Diagnosis.

The diagnosis is made by the tenderness, undue mobility allowed by the laxity of the injured ligament when the case is seen early, ecchymosis, and absence of fracture of the malleoli or tarsal bones. Pain is always sudden and may persist.

When there is considerable effusion of blood into and about the joint it may be impossible to detect a fracture without a radiographic examination. So that, in the absence of displacement, such fractures are very often overlooked and treated as sprains. Therefore, in a doubtful case, the injury should be treated as a fracture.

Treatment.

It will be seen from the foregoing statements that a sprain of the ankle is not a matter to be lightly considered. The persistent trouble that so frequently follows a sprain is undoubtedly due to the imperfect appreciation of the bad results that follow neglect.

This explains the reason for the popular saying that "A sprain is worse than a break." It has been a common experience of many to obtain better results from treating fractures than from treating sprains, the real reason being that the requisite amount of care has not been bestowed on the sprain.

The treatment of a sprain must obviously depend to a large extent upon the severity of the injury.

For clearness we may divide sprains of the ankle into three classes:

1. Into the mild form, where there is simply overstretching of the ligaments, and perhaps no extravasation of blood, or very little.

2. In the medium form, where there is less or more rupture of the fibres of some of the ligaments, with little or much extravasation of blood.

3. In the severe form, where there is complete rupture of some of the ligaments, but not sufficient to produce actual dislocation, accompanied by much effusion of blood and injury to the tissues.

Treatment in General.

The first indication in treatment is clearly to check the extravasation of blood into the joint and surrounding tissues.

The second is to promote absorption of blood already effused.

The third is to obtain satisfactory healing of the injured ligaments, and to restore the movements of the joint to their normal range.

In every case the treatment should commence with free movements of the joint in all directions, so as to make sure that no portions of the torn ligaments lie between the articular surfaces.

Some advise a dose of calomel, to be followed in eight hours by a saline.

To meet the indications mentioned, the ankle should be placed at rest, with pressure and cold applications at first; then massage and passive motion for a variable time, depending upon the extent of the injury, and in severe cases fixation on a splint, followed by the application of an adhesive plaster dressing. In the mild sprains the adhesive plaster dressing is applied at once. The patient is allowed to walk some on the foot within the limits of pain.

The adhesive plaster-dressing was introduced in this country by Dr. Virgil P. Gibney, of New York, in a paper published in the *New York Medical Journal* on February 16, 1895. He states that it was first used by Mr. Edward Cotterel of London.

The leg is first washed and shaved. For a sprain about the external malleolus the foot is held at a right angle, and slightly everted. A strip of rubber plaster twelve inches long and one inch wide is applied, beginning at the outer border of the foot near the little toe, and ending on the inner side of the foot about its middle, just under the plantar arch. The second strip is applied vertically, and passes from about the junction of the middle with the lower third of the leg, down alongside the tendo-achilles under the heel and terminating at a point just above the internal malleolus, but posterior to this.

The remaining strips are applied in the same way, each overlapping the other about one-half, until the malleolus and side of the foot up to the middle third of the leg is covered. It is well to reinforce just under the malleolus by strips passing crosswise, so as to give additional support to the part sprained.

The ankle is not completely encircled, so there can be no constriction. The dressing is applied in a corresponding manner for sprain about the internal malleolus.

Over the ankle thus strapped a cheese-cloth bandage is applied, which ensures the adhesion of the plaster.

If the toes are swollen, the whole ankle must be strapped. Every toe should be separately strapped before the ankle dressing is applied. The dressing may need to be renewed when the swelling recedes.

By this plan a slight amount of antero-posterior motion is allowed, just enough to prevent adhesions in the joint. Lateral motion is prevented, and so the torn ligaments are kept in apposition.

When the sprain involves the tarsal joint itself, or the mid-tarsal joint, and when the whole foot is involved, it is put up as follows: The first strip starts on the inner side of the heel, passes back of the heel below the external malleolus, over the dorsum of the foot, and terminates just under the ball of the great toe. The second strip is started just under the external malleolus, passes over the back of the heel, over the front of the foot, and terminates just under the outer side of the foot, near the little toe. The subsequent strips are applied overlapping upwards above the two first strips. Sometimes extra strips are applied up and down the tendo-achilles, the ends terminating in the sole of the foot.

Treatment in Detail.

1. In the mild form, where there is simply overstretching of the ligaments, with no effusion of blood, or very little, the condition can be estimated by the amount of immediate swelling and pain. The foot is bathed in cold water—though some men advise plunging it alternately into salt water as hot as can be borne, and cold water, for half an hour—to relieve the pain and check the hemorrhage.

The adhesive plaster-dressing is applied as described. The pressure of the plaster prevents any further effusion of blood. The patient is instructed to use the foot, and walk a little every day within the limits of pain.

2. In the medium form, which comprises most of the sprains encountered, where there is less or more rupture of the fibres of the ligaments, with less or more extravasation of blood into the joint and surrounding tissues, the foot is bathed in cold water, wrapped in several layers of cotton, with a firm roller bandage over them, elevated, and an ice bag applied for twenty-four or forty-eight hours according to the degree. This usually prevents any further extravasation of blood, and relieves the pain. This plan tends to subdue the inflammation and to lessen the subsequent synovitis.

The foot is then bathed in warm water. Gentle massage is given by the medical man, its object being to get rid of the effusion into and around the joint.

It should consist merely of gentle stroking in the upward direction, and it should be practised only for about one-quarter of an hour. At first it will probably be found that the lightest pressure causes the patient a good deal of pain, but as the massage is persevered with the pain becomes less, until at the end of the sitting the rubbing will be borne without complaint.

The adhesive plaster-dressing is applied, and the patient allowed

to use the foot within the limits of pain from the second day. The plaster may need to be renewed as the swelling recedes.

3. In the severe form, where there is extensive rupture of the ligaments, much contusion, and extravasation of blood into and about the joint, the treatment is the same as just described for forty-eight hours, but the limb had better be placed on a splint. The splint is removed daily and a warm bath given with massage and gentle passive motion by the medical man, care being taken that the ruptured ligaments are kept in apposition, as in a sprain about the external malleolus the foot is kept slightly everted.

This procedure is followed until the swelling has receded to a great extent, which may take from one to two and a half weeks. Then the adhesive plaster-dressing is applied, reinforced by one or two long strips like a stirrup, extending from below the knee on the inner side of the leg beneath the heel, over the outer malleolus, and finishing near the head of the fibula.

The patient is urged to use his foot some every day within the limits of pain. The plaster may be renewed as the swelling recedes—and the last dressing is generally allowed to remain until it loosens and comes off itself. Recovery is complete in five or six weeks.

The advantages claimed for this plan of treatment are: Early use of the foot, and consequent saving of the patient's time. Relief from pain and assurance of security, for the applied plaster furnishes support to the injured ligaments just where it is needed. Early disappearance of swelling, for the use of the foot and pressure of the dressing supplies the place of massage and passive motion. The ligaments are held in accurate apposition, and so secure and proper healing is assured.

DISCUSSION.

DR. F. N. G. STARR said the reader is to be congratulated first upon the choice of subject, and, second, upon the manner in which he dealt with it.

Many years ago the speaker used a large amount of wool tightly bandaged for 24 hours, and then applied what is now called the Gibney adhesive plaster dressing. The great thing is to avoid too prolonged rest, and the next most important point is to avoid the possibility of flat-foot following.

The chronic untreated cases may give more trouble, but may be helped materially by the use of the hot air bath; followed by massage and subsequently by strapping.

DR. G. E. ARMSTRONG (Montreal), expressed his appreciation of

the thorough and carefully prepared paper. The treatment of these cases depended, first, upon a careful diagnosis. If only a strain of tendons and ligaments, rest for a few hours or days, according to the severity of the lesion. The application of ice inhibited swelling and effusion into the joint by lessening the blood supply through stimulation of the vaso-motor nerves. Later on heat applied locally promotes the removal of the swelling and effusion by dilating the blood and lymph vessels.

Another valuable aid is fixation in the normal position during the acute stage.

Of the value of strapping as practised by Dr. Gibney and Mr. Carter, it is of very great value. The strips should be so applied as to support the strained and injured tissues. In one case they should be applied on the inner side and in another on the outer side.

The removal of fluid from the joints, which has resisted other methods, by aspiration is desirable. The patient should use the joint as early as he can do so without pain.

DR. THOS. HUGH BALFE (Hamilton). In cases of sprains of ankle, it is always important to have complete rest and ice locally for the first 24 hours and firm bandaging, preferably by elastic bandage. It is also well to start passive motion early, with hot bathing, etc., to promote absorption of effusion into joints and to avoid adhesion of joint. I think it is well, if there is much effusion or hemorrhage, to aspirate, or if this is not done, not to allow the patient about too soon, and start early massage.

DR. GIBNEY complimented the reader of the paper on the excellent pathological detail, especially the point he made on the protrusion of a bit of torn ligament into the joint, thus explaining the persistent pain sometimes found.

He called attention to the necessity of conducting the case to an absolute cure, with complete restoration of function.

He took issue with one of the speakers on the statement he made about the necessity for rest for a week or ten days, believing that such a plan would result in impairment of function.

He called attention to the importance of an X-ray as a valuable aid to diagnosis, claiming that if a fracture or dislocation were thus eliminated in the diagnosis, that mild, medium and severe sprains were all amenable alike to the strapping treatment.

LATERAL SINUS THROMBOSIS AND CEREBELLAR ABSCESS.*

BY J. P. MORTON, M.D., HAMILTON, ONT.

Our purpose is to compare two cases one of lateral sinus thrombosis with one of cerebellar abscess.

These cases were under our care at the same time and offered us opportunities for contrast. We found it difficult to steer ourselves through them without mistakes.

The lateral sinus case was in a man of 45 years, who had suffered from right chronic otorrhoea for three years. He was well nourished, of decidedly lymphatic temperament, and was a very heavy drinker.

When we saw him first he was in bed with a T. of 101 degrees and P. 110. He was not complaining much, and his wife thought he was much worse than he pretended to be. He seemed dull, but had been out on a spree for two or three days before. He looked very sick to us and was perspiring heavily. There were no pupillary disturbances. He was constipated, with furred and coated tongue. Slight tenderness was present over mastoid very high up. There was no sagging of walls, and a perforation through Shrapnell's membrane seemed to be plugged with dried matter.

We immediately enlarged this opening down as far as meatal floor and curetted the middle ear and otic, which seemed filled with cholesteatomatous substance, and there seemed to be very little free matter. During the next three days he was much better, T. being 99.5, the ear-ache and tenderness over mastoid disappeared. We used ice over mastoid. On fifth day his temperature rose to 101 and he was perspiring profusely. Mastoid tenderness was very difficult to elicit. He seemed drowsy, although in this connection you must remember his natural apathetic condition and his alcoholic condition. He answered intelligently, but slowly. We sent him to the hospital and watched him for two days. Perspiration continued to be profuse; his temperature went to 103.5 on second day in hospital. He seemed to be duller mentally. There was twitching of facial muscles. No pupillary disturbance and fundus normal. No tenderness in neck over internal jugular vein. There was now profuse discharge from middle ear, but if there had been tenderness over mastoid he now would admit of no more on the

* Read at annual meeting of Ontario Medical Association at Hamilton.

right than on the left. This was very disconcerting, and the diagnosis was between intercranial abscess and lateral sinus trouble. Operation revealed a very much sclerosed mastoid, a middle ear and antrum with well-formed cholesteatomous formation. On uncovering the sinus, we found a discolored dura, no pulsation of vein, the walls were not smooth or yielding to touch. An incision 1-4 inch long brought no bleeding, and instead pus was found in sinus and behind it. We extended the incision to 1 inch in length, and by means of a blunt curette endeavored to secure bleeding from above and below. We were successful at the torcular end, but the bulbar end, which we would rather have had bleed, remained closed. We now proceeded to excise the jugular from clavicle to above the entrance of facial vein, but our anaesthetist informed us that the patient was in very bad condition and asked to be allowed to stop anaesthetic.

Temperature remained normal for two days and mental condition was improved. On third day after operation T. rose to 112 degrees, with profuse perspiration. The nurse said she had "never seen such sweating." In evening T. dropped to 99. This seemed to indicate severe systemic infection from internal jugular, and was shown even more distinctly on sixth day, as T. went to 105 in morning and dropped to 97 at night. We advised removal of internal jugular very persistently, but one of us as a consultant advised against this, and so it was not done. During the next week the patient was very sick. The ear was dressed each day; no syringing was done. The T. dropped to 96 and 97, and this seemed to predominate, but now and again it would rise to 104, 105, and once to 106. He lay on his left side and would not turn to right. Cerebration was very slow, and often he would never answer. He seemed to be very deaf. No aphasia. Pupil on right was dilated slightly, and they both reacted very sluggishly to light and accommodation. He felt dizzy. There was marked twitching of facial muscles, with ptosis of right side. Fundus was normal. The muscle power seemed normal. Slight nystagmus was present when he looked to left side. Urine normal, and blood count showed leucocytosis.

We were pretty sure the patient was going to die. We warmly discussed the probability of brain abscess, and one of us advised exploring for cerebellar abscess. Weight of opinion was against this, chiefly for three reasons:

1. The lateral sinus condition was known to be so bad that it would account for the condition without supposing the other.
2. Absence of optic nerve trouble.

3. The T. did not remain subnormal, but rose every now and again to as high as 106. This was a very important deciding point.

4. Indefiniteness of what cerebellar or cerebral symptoms there were. Nystagmus was only found on having patient look to left for quite a while, and might be due to exhaustion. Slight pupil dilation might be due to his always lying to left side; I have read that this occurs. (In *Allbutt*, System of Medicine.).

His alcoholic condition and natural apathy, with the toxine, would easily account for his sluggish pupil reflexes and his dull mental condition and the poor reflexes, knee, elbow, Babinsky, etc. If his T. had stayed subnormal, operation would have been done.

Extra dural abscess was ruled out because of the freedom with which we opened things up at time of operation. The tegmen tympani was removed and no abscess could have been near the sinus without having been opened: in fact, there was an extra dural abscess opened; it lay around the sinus. We were correct in our judgment, for the patient gradually improved, and is drinking as hard as ever to-day.

Permit me to say that, although the internal jugular was not excised in this case, some of us believe that the patient was allowed to run an unjustifiable risk.

Our second case was in a child of fifteen, and when first seen she had a typical right suppurating mastoid. T. was 105 when we operated, showing very extensive bone destruction, as the case had been badly neglected. We uncovered 3-4 inch of lateral sinus and found it normal. The T. was normal for four days after the operation, and then for three days it went to 99, 100, 101. The child seemed to be getting dull, although when its parents came it seemed as bright as ever.

During following week we noticed these points: T. went to normal, with slight variations, and then to subnormal, with slight variation, but it never went above 99. The child always wanted to turn on its left side and keep its right cheek up. If turned in any other position she would immediately turn back, and there seemed to be retraction of the neck muscles, but this was probably due to action of opposing sterno mastoid, the right muscle now having no mastoid attachment. One of us made the diagnosis of meningitis, but this was ruled out on account of T. and mental condition. There was no nystagmus, even in long trials to either side. No pupillary disturbances. No fundus indications. No aphasia. No vomiting, except once on eating some sweets. Severe diarrhoea. Muscles of right arm were weaker than those of left. Leg muscles equal in strength. Cerebration was undoubtedly slow.

No profuse perspiration. She felt like turning around and could hardly stand up. When we handled her she was very irritable and wanted us to go away, and would cry. All reflexes were exaggerated, chiefly on right side. There were no paralyses, although the eye muscles seemed slow in action. Sensation was normal, although it always elicited irritability. Different diagnoses were here made:

Lateral sinus thrombosis.

Cerebellar abscess.

Temporo sphenoidal abscess.

Extra dural abscess.

Meningitis.

These were held to by different consultants.

We ruled out some of these as follows:

Lateral sinus thrombosis was ruled out because there was no rise in temperature after it became subnormal, and there was no profuse perspiration.

Extra dural abscess, on account of expectation that it would have found exit at site of operation.

Meningitis was ruled out because of continuous subnormal temperature and absence of Kernig's sign, no crying out and recognition of neck retraction as being due to antagonistic sterno mastoid action.

This left temporo sphenoid abscess and cerebellar abscess to trouble us. We decided in favor of cerebellar abscess for the following reasons:

1. Age of patient; 10—20 most common age.
2. Forced position in bed; right side persistently up; curled up in bed.
3. Marked paresis of upper limb on same side as lesion.
4. Exaggerated reflexes on right side.
5. Rotation; fall away from the lesion.

Operation showed a large cerebellar abscess. Patient improved for a few days after operation and then all the symptoms of cerebellar abscess and purulent meningitis became very prominent and patient died. Post-mortem showed diffuse purulent meningitis.

Physician's Library.

Poisoning By Arsenuretted Hydrogen or Hydrogen Arsenide. Its Properties, Sources, Relations to Scientific and Industrial Operations, Symptoms, Post-Mortem Appearances, Treatment and Prevention. With a record of one hundred cases by different observers. BY JOHN GLAISTER, Doctor of Medicine of the University of Glasgow, etc., etc. Price, 5 shillings net. Edinburgh: E. & S. Livingston.

From various sources the author has compiled the histories of several cases, which with those occurring under his own observation, number one hundred and twenty. As there has not been, prior to this, any single volume on the subject, this may be accepted as the standard to go by and will make a distinct addition to Forensic Medicine and Toxicology.

Borderland Studies. Miscellaneous, Addresses and Essays pertaining to Medicine and the Medical Profession, and their Relations to General Science and Thought. Volume II. BY GEORGE M. GOULD, M.D. Price, \$1.50. Philadelphia: P. Blakiston's Son & Co.

As the sub-title implies this is a collection of essays, lectures and addresses which from time to time have been put forth by that energetic and forceful writer, Dr. Gould, who is well and favorably known to the medical profession of Canada. It forms a unique volume in medical literature and will be read with great interest.

Medical Gynecology. BY S. WYLLIS BANDLER, M.D., Adjunct Professor of Diseases of Women, New York Post-Graduate Medical School and Hospital. Octavo of 675 pages, with 135 original illustrations. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$5.00 net. Half Morocco, \$6.50 net. Canadian Agents: J. A. Carveth & Co., Limited, Toronto.

There were surgeons and gynecologists who not so very long ago denied there was such a thing as medical gynecology. The author

of this, however, cannot be classed with those doubting Thomases. He has brought forth a book of some 676 pages, which represents a grouping of his clinical lectures, with some elaborations. The opening chapters deal chiefly with the methods employed in medical treatment and this part of the work is elaborately illustrated. Of course a good part of the book deals with those conditions requiring the surgeon's knife, but throughout the work operative procedures are kept in the background and only brought into view as a last resort. We believe the work will receive the undoubted endorsement of the general practitioner.

The Works of Voltaire. In our front form pages will be found an advertisement which sets forth pretty completely details with regard to this very fine set of books. On the title page we read—A Contemporary Version—A Critique and Biography, by the Rt. Hon. John Morley—Notes by Tobias Smollett, revised and modernized—New Translations by William F. Fleming and an Introduction by Oliver H. G. Leigh. The work is complete in 43 volumes and will make a very handsome and acceptable addition to all medical libraries in this country. There are all told 168 designs, comprising reproductions of rare old engravings, steel plates, photogravures and curious fac-similies. The work is put forth by the craftsmen of the St. Hubert Guild, Werner & Co., Akron, Ohio.

Contributions to the Science of Medicine and Surgery. By the Faculty in Celebration of the Twenty-fifth Anniversary, 1882-1907, of the founding of the New York Post-Graduate Medical School and Hospital.

This is a handsome paper-bound volume of 485 pages. The frontispiece is a fine portrait of D. B. St. John Roosa, M.D., LL.D., and the opening pages are devoted to a short sketch of his life. The book is a volume of original articles, all of exceeding value and great interest covering a wide range of subjects.

The Canadian Medical Protective Association

ORGANIZED AT WINNIPEG, 1901

Under the Auspices of the Canadian Medical Association

THE objects of this Association are to unite the profession of the Dominion for mutual help and protection against unjust, improper or harassing cases of malpractice brought against a member who is not guilty of wrong-doing, and who frequently suffers owing to want of assistance at the right time; and rather than submit to exposure in the courts, and thus gain unenviable notoriety, he is forced to endure black-mailing.

The Association affords a ready channel where even those who feel that they are perfectly safe (which no one is) can for a small fee enroll themselves and so assist a professional brother in distress.

Experience has abundantly shown how useful the Association has been since its organization.

The Association has not lost a single case that it has agreed to defend.

The annual fee is only \$3.00 at present, payable in January of each year.

The Association expects and hopes for the united support of the profession.

We have a bright and useful future if the profession will unite and join our ranks.

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And Ontario Medical Journal

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COMMENT FROM MONTH TO MONTH.

Canadian Medical Association—Amendments to By-Laws By Executive Council. Under "Officers and Committees," Art. 1, sec. i., all the words after Association are struck out. Under Art. III.—"Reference Committees"—Sec. v., Committees on Reports of Officers was amended to read: Committee on Medical Education. Art. I.—Committees—sec. vii was changed to read as follows: The Committee of Arrangements shall have power to add to its numbers and shall name two of the Reference Committees, as well as the Chairmen thereof, namely, 1—A Committee on Sections and Section Work. 2—A Committee on Credentials. Art. III, Sec. I—Reference Committees, was amended to read as follows: The Executive Council shall at its first meeting name the following six Reference Committees and appoint the Chairmen thereof. 1—A Committee on Medical Legislation. 2—A Committee on Medical Education. 3—A Committee on Hygiene and Public

Health. 4—A Committee on Amendments to the Constitution and By-Laws. 5—A Committee on Reports of Officers. 6—A Committee on Necrology. Then under "Scientific Work"—Art. I—General Meetings—Sec. 2., the first sentence thereof read as follows: A General Meeting or Session shall be held at 10.30 a.m. of the first day, and at such other times as shall be decided by the Committee of Arrangements.

The Calmette Tuberculin Test. In a recent article in the *Journal of the American Medical Association* Dr. Harry C. Parker draws the following conclusions regarding this very interesting test for incipient tuberculosis:

I. The Calmette ocular tuberculin test is of as great diagnostic importance as any other single test.

II. A positive reaction is indicative of a tubercular focus, somewhere in the body.

III. The test is uncertain in patients under two years of age, in whom the cutaneous test of Von Pirquet is most certain.

IV. The test fails in advanced cases of tuberculosis but there is little need of it here.

V. The initial instillation should be preferably under one per cent. strength in order that severe inflammatory conditions may not follow. If necessary to make the second and stronger test, the eye not previously used should be selected.

VI. The consensus of opinion seems to be against using the test in an eye not wholly normal.

VII. After complications have occurred from its use but have entirely cleared up in a varying length of time and are not so frequent when the initial test is made with a solution under one per cent., recent investigations have shown a greater number of ophthalmic affections due to tuberculosis than formerly supposed. And in the Calmette reaction we have a simple means of differential diagnosis, which should be thoroughly tried.

VIII. The ocular reaction is especially valuable for ascertaining the tuberculous nature of cases of phlyctenular keratitis and con-

conjunctivitis episcleritis and scleritis, chronic iritis, iridocyclitis, interstitial keratitis and chorioidities.

IX. A one per cent. solution of Koch's Old Tuberculin is nearly as good as the Calmette solution for diagnostic purposes.

X. The test in the hands of various observers has given such uniformly excellent results that its value is practically assured.

British and Canadian Medical Journals, and consequently British and Canadian practitioners have taken very little interest in the campaign which for the past few years has been going on in the United States and which is quite commonly referred to as "The Great American Fraud." In the June issue of the *Critic and Guide* are some striking comments on the subject. One is entitled "Do Physicians Prescribe Nostrums? or, Bok's threat to annihilate the Medical Profession." Another deals with the proteid iron preparations of the National Formulary, or the N. F. propaganda, with some queries and conclusions. To those who have been using and getting the good results for years from many well known proprietary preparations, which have not been admitted into the National Formulary, it is difficult to understand the just limitations of prescribing. Probably there will be many who would agree in affirming their adherence to what a preparation will do than to what it exactly is. Supposing for instance we did know the exact proportions of all these preparations, who would remember them, and who would not go on prescribing them for the results got, rather than for the ingredients they contained? Preparations which are put forth by honorable and responsible manufacturers should not be unjustly and indiscriminately condemned, because the age has demanded the best skill of the pharmacist, which is not always to be got even from the physician and local druggist combined. When the physician prescribes he trusts to the honesty of the druggist that his prescription is properly and correctly dispensed. If a manufacturing pharmacist places before us a preparation which will produce results, why consider he is always dishonest? If we do not get the results in a given patient we soon abandon that preparation, as we would one we knew the exact in-

gredients of. Reputable and responsible houses dealing directly with the profession should not be classed with all the ordinarily denominated nostrum-vendors catering to the public at large. If a friend in the profession had evolved a prescription which would do the trick in a certain disease, and would not give it to us, but would supply the medicine, would we be likely to accept it when we knew that it would produce in our hands the same results it did in his? But, of course, many will say he is not at all ethical in keeping secret what will do mankind good. But he is probably doing the best by himself, his family and his own practice. Probably if physicians in this respect took a leaf from the book of the manufacturing pharmacists they would better profit thereby. We believe in the survival of the fittest, and if a proprietary is not going to produce results, it will fail; as long as it does so, the physician is going to use it.

The Montreal Medical Journal in its August issue delivers a stinging rebuke to Canadian charity, christianity, philanthropy and civilization. It was born of a case such as this which we have clipped from the *Montreal Star*: C. M. died this morning at the Grace Dart Home on St. Antoine Street, of which he had been an inmate for about a week. It will be remembered that the unfortunate man was found some days ago lying in a field in an unconscious condition and evidently dying of tuberculosis. The city hospitals, however, refused him admittance, as their rules prevent them accepting patients of this class. The only thing to do, then, was to send him to jail. He was, therefore, brought before Recorder Weir for this purpose, but the Recorder interested himself in the case and succeeded in having him taken into the Grace Dart Home, where he died this morning.

With fine sarcasm the editorial pen tells how we can buy a battlefield, maintain an Olympic team in England at a cost of some \$18,000, and boast of the great wheat fields of the last great West, yet the Dominion Government with its lavish expenditure cannot find more than a paltry \$5,000 per annum to give to the National Organization for the Prevention of Tuberculosis. Nor even can

that self-same Government act quickly in getting a leader to prosecute a campaign against all forms of contagious and infectious diseases. But in the matter of the non-admission of this class of patient into the hospitals of Montreal, the Government is not to blame. It is surely up to the physicians of that great metropolis, there as elsewhere, physicians who are at no time afraid to attend patients suffering from all forms of dangerous diseases, to educate the people that their hospitals must do their duty by the sick, until such times as there are proper institutions established to take care of them. Surely wings can be set apart in all hospitals for these unfortunates that it will not be necessary for them to take to the woods or the fields to find a resting place for their tired bodies. Imagine having to send a tuberculous patient to jail! It makes one shudder. It is quite as bad or worse than sending people of unsound mind to the same place. But Toronto does not do that nowadays.

Clean Milk. At the International Congress on Tuberculosis, which is to be held in Washington from September 21st to October 12th, the New York State Committee of that Congress is to have a Clean Milk Exhibit. It is to consist of photographs of dairies, statistical charts and Petri plates of the bacteriology of milk and illustrations of tuberculin tests for cattle; will have a small working dairy with tuberculin tested cow, skilled attendants, sanitary utensils, shipping cases and all sanitary appliances for the marketing of clean milk. On cardboards will be printed a series of aphorisms regarding clean milk. There will also be represented graphically the food value of milk as compared with other foods, as well as charts illustrating the general sources of infection of milk with tuberculosis germs. The question of a pure milk supply is before the world as it has never been before. Medical Societies in this, in the old land and in the United States are appointing special committees on the subject, known as Milk Commissions, to take the matter in hand to influence Governments, Federal, Provincial and Municipal therein. From the *Home Journal*, an interesting journal published

in Toronto, we learn that a good start has been made this year in pure milk for Toronto's poor children. From the cow to the consumer this product, and one of the best of foods, must be carefully produced and its production watched all along the line. Towards this end we would suggest to the Canadian National Exhibition that they join in the movement for a clean milk supply, as that body, it seems to us, have it in their power to educate the masses of the people, especially the farmers and the producers, more than any other at present in existence. They have already a Dairy Process Building. They have the accommodation for cows. They have the hundreds and thousands of farmers every year in attendance; they have the consumers every year in attendance, all of whom would be sure to take the liveliest interest in the demonstrations which they could give in the production and handling of a clean milk supply. An exhibit of this character for two weeks every year at our National Exhibition would be sure to prove a profitable and popular feature.

News Items.

OUR Associate Editor is a very happy man just now. This time it's a boy.

DR. INGERSOLL OLMSTEAD, Hamilton, is spending a few months in Germany.

DR. JOHNSON, of Millbank, Ont., has been paying a visit to friends in Toronto.

DRS. R. W. Bruce Smith and J. N. E. Brown, Toronto, have returned from a European trip.

DR. PATRICK C. MURPHY, Tignish, P.E.I., has been elected President of the Maritime Medical Association.

DR. F. MONTIZAMBERT, Director General of Public Health, has been inspecting quarantine stations on the Pacific coast.

DR. CLARENCE L. STARR, Toronto, announces he will hereafter confine his practice to general and orthopaedic surgery.

DR. ALGERNON WOLVERTON, Hamilton, who was stricken with paralysis on the *Victorian*, is now in a Montreal hospital.

DR. A. E. ROBERTSON, of the resident staff of the General Hospital, Toronto, has left for a three months' sojourn in Scotland and England.

DR. BRICK, of Palermo, probably the oldest medical practitioner in Halton County, was stricken with paralysis last week and is in a critical condition.

PROF. DR. LANDOUZY, Dean of the Faculty of Medicine, of Paris, will pay a visit to Toronto, shortly after his arrival in New York on the 17th September.

DR. ED. WILFORD, of Blyth, has left for Edinburgh, where he will pursue his studies before entering on his work as a medical missionary in China.

DR. R. D. RUDOLF, Toronto, has been appointed Professor of Therapeutics in the University of Toronto, and has become a consulting physician.

DR. JOHN McCULLOCH, who recently disposed of his practice at Janetville, leaves shortly for Scotland, where he will take an advanced post-graduate course at Edinburgh.

"THE Great Fight," the title of one of the poems in a collection of poems and sketches by the late Dr. W. H. Drummond, is in press and will soon appear. The book will also contain a biography, written by the habitant poet's wife.

MONTREAL will hereafter have twelve medical school inspectors instead of thirty as formerly. They will be on duty during the school year, and each man will be responsible for his district.

DR. EDITH BEATTY, who has been appointed Superintendent of Grace Hospital, to succeed Miss Patton, who has resigned, graduated in medicine at the University of Toronto in 1905, and since then she has practised her profession in Guelph.

DR. J. CURRY SMITH, one of the best known physicians in Simcoe County, died on July 30th of typhoid at Barrie, after three days' illness. He was attacked with appendicitis and later with typhoid. He was a prominent Mason and a member of the School Board.

DR. GEORGE HODGE, Professor of Clinical Medicine in the Western Medical School, and one of the best known physicians in Ontario, died at St. Joseph's Hospital on August 26th from an attack of pneumonia. Dr. Hodge was 68 years old, and graduated from Queen's University in 1870.

THE American Public Health Association met in Winnipeg on the 25th, 26th and 27th of August. Seventy-three new members were added to the roll. Several Canadian practitioners took part, including Drs. P. H. Bryce, Chas. A. Hodgetts, Roberts, Hamilton; Amyot, Toronto; and W. T. Connell, Kingston.