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CANADA

MEDICAL & SURGICAL JOURNAL.

ORIGINAL COMMUNICATIONS

Objections to some of the recent views upon the Pathology of Tubercle and Pulmonary Consumption, being the Address in Medicine read before the Canadian Medical Association, on the 5th August. By R. P. HOWARD, M.D., L.R.C.S.E., Professor of Theory and Practice of Medicine, McGill College.

Gentlemen of the Canadian Medical Association :

As you have generously left to my own choice the subject in medicine upon which I am to address you, I have selected one which because of its great importance and of the differences of opinion respecting it that exist among the leading minds of our profession, seems worthy of the occasion.

I ask your attention and indulgence while offering some observations upon the remarkable views that have been recently propounded upon the Pathology of Tubercle and Pulmonary Phthisis.

Perhaps the most startling pathological doctrine advanced in modern times on respectable authority is that miliary tubercle and so-called tuberculous infiltration are due to the absorption of the *caseous* detritus of the products of some pre-existing local disease as a pleurisy, pneumonia, scrofulous gland, diseased bone, abscess, fistula, etc.,—that tuberculosis is *either* an *absorption* disease nearly allied to pyæmia (Waldenburg) or a specific *infectious* disease 'like small pox (BurdonéSanderson).

More or less closely connected with this new doctrine, but not necessarily arising out of it, is the old thesis revived in a modified form, and because of his able advocacy of it, usually associated with Niemeyer's name, to the effect that the ordinary form of chronic phthisis pulmonum is of inflammatory origin and due to a so-called "caseous pneumonia," which may be induced by a *catarrhal* bronchitis or the local irritation of blood poured into the bronchial cells in pulmonary hemorrhage.

As these views are of overwhelming importance, in view • of the practical consequences which must inevitably follow their establishment, I venture to raise some objections to them for the consideration of the members of this Association.

The absorption theory of tubercle rests mainly upon the interesting experiments initiated by Villemin in 1865 and subsequently confirmed and extended by Andrew Clark() Burdon(Sanderson, Wilson Fox, Waldenburg(h) •Cohnheim, and others. These experiments revealed the

Connterm, and others. These experiments revealed the important fact that in the Guinea pig, and in some other animals, the inoculation of tubercle, pus, putrid muscle, etc., of tubercle which had lain several months in alcohol, or had been submitted to the action of fuming nitric acid, or of carbolic acid, will produce *primary* lesions at the site of inoculation and *secondary* lesions in the internal organs, which appear to be identical with tubercle. Even the local irritation of a seton of cotton or of silver wire will produce similar effects in the Guinea pig.

Now, lest these inoculation experiments upon animals should be assumed to have proved more than they have let it be borne in mind (I) that every animal has its own special organization and probably its own special aptitudes as regards diseased action; and (2) that it has yet to be shown that the inoculation of tubercle or other material is capable of producing lesions identical with tubercle in the several organs of the human body.

(3.) Clinical experience does not show that the irritation of setons or issues is causative of tuberculous disease in man.

(4.) Local suppuration when productive of secondary

98

remote lesions in various parts of the human body tends to develop pyæmia, with its peculiar metastatic deposits, or amyloid disease of the viscera—not, I believe, tuberculous disease. I regard this fact as strongly opposed to the inoculation doctrine. The very condition, chronic suppuration, as seen in necrosis, or caries for example, and which resembles so closely the action of a seton, is the very condition which is recognized as *the* cause of amyloid disease of the liver, spleen and other organs.

(5.) It is asserted that pleurisy and especially chronic pleurisy frequently causes consumption.

Now Dr. Blakiston watched for some years the course of 79 cases of chronic pleurisy with the following results— 10 were lost sight of — of 16 it was only known that they were living — and of the remaining 53 *not one* had become phthisical. Dr. Payne-Cotton's experience and Dr. Flint's is opposed to the view in question and coincide with Blakiston's. M. Aran and M. Siredey both contend that the autopsies of empyemic subjects show that tubercle is more frequently absent than one might expect.

Dr. A. Attimont's researches give 80 definite cures out of 130 cases of empyema, many of which moreover had been watched for a long time. And in 29 autopsies of empyema tubercles were absent 20 times and present only 9 times. If so many persons recovered perfectly from empyema, and if tubercle was found but 9 times in 29 cases, it certainly does not appear probable that empyema can be a very frequent cause of pulmonary tubercle.

When tubercle appears to have followed an empyema or a pleurisy, several explanations may reasonably be offered of the relationship: Tubercles may have existed in the lungs or pleura at the time of the invasion of the inflammation — or, as was admitted by Trousseau, a predisposition may have existed, which the local inflammation developed into actual disease.

(6.) If there are not sufficient grounds for asserting that the absorption of the products of pleurisy causes the

formation of tubercle, what about other local inflammatory affections?

Much importance cannot be reasonably attached to the statement of Troltsch, that purulent otitis not rarely precedes tuberculous meningitis, and even general tuberculosis, when we reflect how common an affection otorrhœa is in childhood.

(7.) It has been claimed that *fistula in ano* may initiate tubercle. But let it be noted that according to Pollock, and such has been my own experience, "the phthisis is the earliest affection," although it "occasionally happens that the fistula precedes all symptoms of consumption." Indeed, the same authority remarks that "in the larger proportion of cases it [the fistula] is found in the *third* stage, next to this in the second.

Now, if the absorption of corpuscular products from abscesses, ulcers, etc., may induce tuberculous disease, how comes it that a *fistula in ano* is, according to Pollock *never associated* with *acute* phthisis? the very variety in which the tubercle par excellence (miliary tubercle) of Virchow is present? And that the existence of anal fistula in chronic consumption appears to *prolong* the duration of the pulmonary disease, instead of causing it to extend and take an active course through the constant absorption of the inflammatory products?

(8.) Disease of the *bones* is regarded as one of the pathological conditions likely to produce tuberculous disease.

To show that disease of the bone is far from constantly or even frequently a cause of consumption, I would cite M. Coulon, who in 130 children suffering from scrofulous disease of bone found only three that had phthisis.

Mr. J. W. Hayward, writing upon another subject, gives some facts which appear to me corroborative of the view I am defending. "Of 85 consecutive cases admitted into the hospital for sick children for various tubercular affections, in only *one* was there any bone or joint disease." "Of 134 cases of chronic bone or joint disease of which" he "took notes in the Hospital for Sick Children, in only 9 was there any sign of tuberculosis, and but 17 displayed other signs of scrofula."

Of 790 cases of *bone* and *joint* disease in adults and children admitted into St. George's Hospital, disease existed in other parts in 80 instances only, or in about ten per cent., and it may be safely assumed that the co-existing disease was not in every instance tuberculous.

(9.) There is one affection especially characterized by a tendency to caseous degeneration of the lymphatic glands which because of its frequency ought, if the absorption thereby be true, to be found very frequently associated with consumption. What are the facts?

Mr. B. Phillips taking enlarged glands with sinuous ulcerations and enlarged joints as diagnostic of scrofula, found scars resulting from scrofulous abcesses in only 7 out of 352 cases of phthisis. Dr. E. Smith, in 1000 cases of consumption, found that only 12.8 % (not 13 per cent.) had suffered from enlarged glands.

Of 1973 cases examined at Brompton Hospital for consumption only 3.8 % (not 4 per cent.) had scrofula.

Dr. Flint writes, "I have collected a number of cases in which young and middle aged persons presenting the characteristic cicatrices on the neck were free from tuberculous disease of the lungs; and on the other hand, it is extremely rare to find these cicatrices in persons who are affected with pulmonary tuberculosis." Such also is my own experience.

But the supporters of the doctrine that tubercle results from the absorption of caseous products rely also very much upon the fact that the able advocate of the theory, Fuhle, having carefully examined 23 cases of acute tuberculosis found *in all but one* or *two* masses of caseous matter, which he assumes to have *preceded* the tubercle.

In reply it may be urged that Wilson Fox has always found the histological elements of tubercle in the walls of

the air cells when caseation was present. That Dr. Schuppel, writing in 1872 upon tuberculous disease of the lymphatic glands, concluded that in all cases, caseous scrofulous glands are the seat of true tubercles, and that the caseation is due to the necrosis of the tubercle." That Dr. L. Thaon, writing in 1873, throws great doubt on the existence of any true cheesy inflammation independently of the tuberculous granulations, and concludes that cheesy inflammations are as much manifestations of tuberculosis as the grey granulations (miliary tubercles) themselves; a conclusion almost the same as that entertained by Wilson Fox. And that quite recently, Dr. Friedlander has stated that "though caseous deposits are found in nearly all cases of disseminated tuberculosis; in some a most careful examination has failed to detect them. And moreover, such deposits are so common that they are found in the bodies of 50 % of all adults who have died from any cause. And though the proportion of such deposits is much greater in cases of disseminated tuberculosis, it must be remembered that a very large number of these deposits are actually the *result* of local tuberculosis, all caseous glands for example : * * "and that we have quite as much right to consider that certain forms of local tuberculosis dispose, even after their relative healing, to the origination of disseminated tuberculosis, as to assume with Buhl that this is due to caseous infection."

Having in my own opinion, shown that the Absorption, theory of the production of tubercle suggestive by the inoculation experiments upon animals is not borne out by clinical experience, nor rendered probable by unanimity of opinion amongst histological authorities, I turn to the other doctrine that the ordinary form of chronic plumonary consumption is of inflammatory origin and due to pneumonia.

This is indeed a question beset with difficulties and upon which the ablest pathologists take sides, and I therefore claim your indulgence while venturing to speak upon the subject. Most clinical physicians will admit, I doubt not, that ordinary acute (croupal) pneumonia in the great majority of cases runs a short course, its products are completely removed, and no ulterior damage follows. It is admitted that occasionally, though but rarely, this form of pneumonia induces abscess or even gangrene of the organ, but even then the disease can be distinguished from ordinary chronic phthisis.

But it is *catarrhal* pneumonia that the new school of pathologists, ably represented by Niemeyer, Waldenburg, Buhl, and others assert, originate and constitute the most frequent form of chronic consumption, and that miliary tubercle has nothing to do with it and is very frequently absent.

Now I submit that this question cannot in the present state of conflicting opinions and observations amongst histologists, besettled upon histological evidence. Need I remind you of the discordant views expressed by the able men who took part in the debate upon tubercle in the Pathological Society of London last year? The out-come of. that discussion was, in my opinion, that the microscope does not enable us to distinguish tubercle from the products of lobular pneumonia and from other products which may closely resemble it. Nay, histologists are not agreed as to the histological characters of tubercle itself; and I have before mentioned that they differ as to the relationship existing between tubercle and caseous masses in the lungs; some contending that caseous material may exist without tubercle, but that tubercle results from the absorption of caseous products, - others that wherever caseous materials are present in the lungs tubercle coexists; and others, that caseous inflammations are as much manifestations of tuberculosis as miliary tubercle itself.

Histological evidence then being unsatisfactory we appeal to *clinical*.

After what has been said, it may be asserted with confidence, that in a given case unless the physical signs, the symptoms, and the whole clinical history during life were those of catarrhal pneumonia, the existence of caseous masses in the lungs could not fairly be taken as proof that the disease was pneumoniac and not tuberculous.

Now the clinical features of catarrhal pneumonia differ from those of ordinary chronic phthisis.

Thus, (a) Rokitansky says that catarrhal pneumonia affects children chiefly and is "of rare occurrence in adult life," and Niemeyer himself observes that "we may very properly call it a disease of childhood." The converse is true of chronic phthisis; it but rarely occurs in children, it obtains pre-eminently in adult life.

(δ .) The chronic form of catarrhal pneumonia is so infrequent that Buhl has lately questioned its existence, and it is met with chiefly, almost solely, in connexion with measles, hooping cough and capillary bronchitis. The same cannot be affirmed of chronic phthisis.

(c.) While the statement, that a well developed paroxysmal cough accompanied in a few days by expectoration, or at least by the evidence of considerable secretion from the broncho-pulmonary membrane, and plainly explained by the physical signs of bronchitis, is almost invariably true of catarrhal-pneumonia—the statement that short cough or a mere hem, unaccompanied by expectoration for weeks, and either not accounted for by physical signs at all, or by physical signs differing in several respects from those of bronchitis and catarrhal pneumonia, is equally true as a general rule of chronic phthisis.

(d.) The physical signs of chronic consumption in the early stage are not those of catarrhal pneumonia. Thus in the former there shall exist for weeks and even months simply feeble respiration or harsh respiration with prolonged expiration and a shade of diminished percussion resonance at the apex of one lung without either whistling or bubbling râles — indeed these may never ensue; and the other apex and the bases of the lungs shall present no signs of disease. Broncho-pneumonia on the other hand, is preceded by the physical signs of bronchitis — the signs are distributed more or less symmetrically over both lungs, but predominate at the bases of those organs.

In view of the fact that histological examination cannot be relied upon, and that clinical evidence does not support the statement that either croupal or catarrhal pneumonia is apt to terminate in or constitute chronic phthisis, it may be concluded that Niemeyer was wrong in maintaining that chronic phthisis usually originates in inflammation of the lungs.

Admitting that ordinary lobar pneumonia sometimes ends in softening and ulceration of the lungs; that chronic bronchitis sometimes becomes complicated with induration, and that the indurated portions may slough or ulcerate; and that catarrhal pneumonia sometimes is followed by ulcerative destruction of the lungs, yet these issues are so infrequent relatively to the frequency of lobar pneumonia, chronic bronchitis and catarrhal pneumonia respectively, that they cannot reasonably be regarded otherwise than as *exceptional*, and not as the natural course of these affections.

The great fact which nearly all pathologists admit in some form, that a predisposition to pulmonary consumption, inherited or acquired exists, and which has led to the disease being placed amongst the constitutional affections, seems to prove that there is something special and peculiar to the disease which distinguishes it from simple inffammation of the lungs, whether croupal or catarrhal.

BurdoneSanderson, while applying the facts of animal inoculation to the pathology of consumption in man, admits this *latent phthisical* bias. Virchow and his followers, including Niemeyer, admit that the predisposition to the so-called "caseous" or "scrofulous" pneumonia which the latter regards as the nature of most cases of chronic consumption, is "inherited" as "a vulnerable constitution."

It is this bias or a tendency in the individual that conditionates the peculiar characters and course of the hyperplastic or the inflammatory process, whichever it is, that produces consumption — and its recognition is equivalent to the admission that the so-called "caseous" or "scrofulous pneumonia" of ordinary phthisis is peculiar and essentially different from pneumonia occurring in persons free from the inherited or acquired tendency in question. It is this inherited, or perhaps acquired, mode of vital action — this constitutional bias — that causes a bronchitis or a pneumonia to take on peculiarities which distinguish it from ordinary bronchitis or pneumonia. The bronchitis or pneumonia becomes the agency of developing the latent tendency in the individual.

But I must stop lest I overtax your patience. I have attempted to show that it has not been proved by an appeal either to histology or to clinical observation, that tubercle or consumption may be produced in the human subject by the absorption of caseous and other products of inflammation, as it appears capable of in rabbits and other animals. And I have also attempted to show that clinical observation is opposed to the doctrine that ordinary chronic pulmonary consumption consists of simple pneumonia, either croupal or catarrhal, and that if the local process is inflammatory it is at least of a peculiar or specific kind, and to be designated by a distinctive name such as "caseous," or "scrofulous," or tuberculous." It has its own symptoms and signs, runs its own peculiar course, recognizes its own causes and pathology and demands its own therapeutics.

But it does not follow that we may neglect or treat as trivial a bronchitis, an intestinal catarrh, a chronic abscess, or a fistula. Nor do I wish to deny that inflammation plays an important rôle in consumption, infiltrating the pulmonary substance in the neighbourhood of the tuberculous disease with materials prone to degenerate, but simply to maintain that the great majority of cases of chronic phthisis are *not* cases of, and do *not originate* in either lobar or broncho-pneumonia.

Montreal, 31st July, 1874.

Since this paper was read I have seen a notice of Buhl's recent monograph upon "Inflammation of the Lungs, Tuberculosis, etc.," and have been much interested on observing that, contrary to the teachings of Niemeyer and his school, he states that neither croupous nor catarrhal pneumonia ever gives rise to phthisis. However, he has described a third form of pneumonia not previously mentioned by pathologists, under the name of "Desquamative pneumonia" the highest degree and the commonest form of which he calls "caseous pneumonia," and regards it as constituting one of the commonest forms of phthisis.

Not only does Buhl agree with the writer that neither croupous nor catarrhal pneumonia passes into consumption, but in opposition to Niemeyer he denies that "caseous pneumonia" ever originates in the catarrhal or croupous form, a view which is in harmony with the tenor of this address. Of course it remains to be seen whether pathologists will accept and confirm the existence of a third variety of pneumonia—the "desquamative"—distinct and different from the croupal and catarrhal forms.

Montreal, 19th Aug., 1874.

Correspondence. -

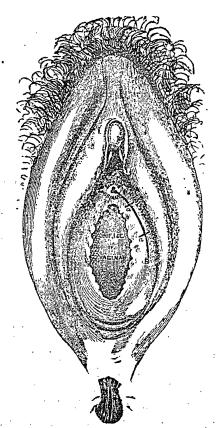
Edinburgh, August 6th, 1874.

To-day I visited the Royal Infirmary, by the invitation of Mr. T. Annandale, and had an opportunity of sceing that gentleman perform an operation for cleft palate. In this case, the greater part of the hard palate was deficient, and the gap was fully as broad as the finger. A great part also of the soft palate was deficient. The gag was used and the patient placed under chloroform, and the operation was begun by seizing the point of the uvula on the left side, putting it on the stretch, and then, with a pointed bistoury, transfixing it at the apex of the cleft, and removing the free surface of the mucous membrane, down to the extreme edge of the uvula. The other side was pared in the same manner. A fine incision was then made on either side down to the bone, running close to the teeth. The operator then raised the whole flap and periosteum as far as the edge of the cleft, with the scraper,--thus he obtained two large free flaps, which were readily, united with sutures. The silver wire suture was used and Mr. Annandale stated that he usually left the sutures in for ten days or a fortnight. After the sutures were introduced the flaps appeared to fit accurately without the least tension. Mr. Annandale does not consider it necessary to divide the muscles on either side, according to the practice of some London surgeons, and he remarked that he had never seen any trouble from non-union in part, necessitating a second operation, nor any difficulty with the bone so freely denuded of periosteum. " He also showed me a case of disease of the knee-joint in a child of about four years old, in which he purposed performing excision on the following day. I regret that my arrangements would not allow me to remain another day in Edinburgh, and I left for London that evening. In conversation with Mr. Annandale, I mentioned, that, in excision of the knee joint in young subjects, I had removed with a fine saw, a thin slice of bone, sufficient to take away the diseased ends without removing the entire epiphyses. He said that he had done the same himself on several occasions, using a knife for the purpose, with the most happy results. This must be looked upon as a gain in operative surgery, as it is all important to save a portion at least, of the epiphyses.

LONDON, AUGUST 8th.

This afternoon I went to King's College Hospital as I understood that Sir William Fergusson would be there and would be sure to operate, and as I had a great desire to see him wield the knife, I went early. There were not many present, and the operators were Mr. Henry Smith, who removed, with the knife, a portion of the tongue for epithelioma, and Professor Wood. Mr. Wood performed lithotomy on a female, and as his operation was somewhat novel, I will describe it. After introducing a sound and satisfying all present, by an audible click, that a stone was present, he passed a straight grooved sound into the blad-der. The groove was held well inclined to the left side and a fine, long, straight bistoury was then passed into the groove, and on into the bladder, and the parts were then incised in a somewhat curved direction outwards and downwards, passing to the outer side of the vagina. The wound was, in reality, funnel-shaped, the small end being at the neck of the bladder. The finger of the operator was inserted with ease, and he then introduced a pair of lithotomy forceps, and with a little traction and quiet manipulation he removed a stone the size of a hen's egg, composed apparently of lithic acid, with a coating of

109 .



phosphates. After the removal of the stone, two wire sutures were inserted, one near the meatus urinarius, and the other midway in the incision. After the patient was removed, Mr. Wood made some very excellent remarks, and drew a rough diagram on the black-board illustrative of the different styles of procedure in this case. He said the patient had suffered from the disease for more than two years, and that she had been most heroically and persistently treated during that period for ulceration of the os uteri. She had even been an inmate of a hospital for diseases of women, and although he did not question at

the time existence of uterine disease, yet the treatment was not followed by amelioration of the symptoms. Here he would remark, that this case illustrated the fact of every day occurrence, that surgeons devoting their time exclusively to any specialty were apt to overlook symp-toms pointing to the existence of other ailments, and in consequence failure to give relief was the certain result. He had been requested to see this patient some short time since, and he discovered by careful examination that a stone of considerable size existed in the bladder, sufficient in size and hardness to give an audible ring, which was heard by every one in the theatre. With regard to the operation he might state that he believed it had been seldom, if ever, performed, except in this theatre, and then only by Sir William Fergusson. It would be observed that his operation simulated somewhat, the lateral operation in the male. He divided freely the cellular tissue outside of the vagina and thus had a broad surface for subsequent union, and avoided the chance of having a vesico-vaginal fistula as the vagina was not incised, The muscular fibres of the urethra were incised in one direction only, hence there was less likelihood of incontinence of urine following the operation. He believed that in the operation for fistula in ano, when the sphincter was divided across at two points, incontinence of fæces would follow, if however, only one incision was made across the sphincter, it would regain its power retaining the contents of the rectum. So also in this operation, the sphincter muscle, so to speak, of the urethra, was incised at one point only, and therefore it would regain its tone. To prevent the urine from trickling over the wound, he would direct his patient to lie on her face.

Afterwards, Sir William Fergusson performed excision of the knee joint. The patient was a young man, comparatively robust, who had been suffering for some time from disease of the knee joint. Esmarch's bloodless method was employed, and chloroform administered, and the oper-

ation begun in the usual way. The patella was removed with all the synovial membrane, which was very much thickened, and the end of the femur and the upper part of the patella were found extremely denuded of cartilage. All the vessels, which were small were ligatured, the limb adjusted on a splint, and then the edges of the wound. brought together by sutures. The whole was done in such a way as to give the spectator the idea that the operator was a perfect master of his art. Before putting up the limb, the bones were accurately adjusted and Sir William -found it necessary to remove a thin slice of bone from the back part of the femur. After the removal of the patient Sir William Ferguson made a few remarks concerning the case. He subsequently operated on two cases for caries of the tarsus, gouging out the diseased bone and dressing the parts in the usual way, - with oiled strips of lint. After the removal of the patients, he exhibited two cases of successful result, after operation for cleft palate. In one case. he said that he had almost regarded cure hopeless, as the gap was so large, and also there was (what appeared to me to be) the co-existence of a double hare-lip. The results in both cases were satisfactory.

G. E. F.

MONTREAL, 20th AUGUST, 1874.

To the Editor of the Canada Medical Journal :

SIR,—In the July number of your paper a copy is given of the proposed bill "To Amend the Act of Incorporation of the Pharmaceutical Association of the Province of Quebec and to regulate the sale of Poisons." Nothing can be more satisfactory than the general tenor of this bill, since there are few matters of greater consequence to the public and to the medical profession than that a proper guarantee of efficiency should be given by those who undertake the

responsible duty of dispensing medicines. To the drug-gists the bill will no doubt be welcome, as tending to elevate their social and professional standing. Much has been said of the injustice of a practice hitherto common among physicians, namely, the practice of recommending some particular druggist, and yet so long as there is a possi-bility that a prescription may fall into the hands of some ignorant person, the prescriber is clearly justified in sending his patient where he believes the danger is least likely to occur. It is true that most, if not all the gentlemen at the head of the various establishments in this city are perfectly well qualified, yet it is no less true that in many shops persons are employed who are quite unfit to be entrusted with a prescription, and it is a matter of fact that such persons have occasionally, during unusual pressure of business, or during the absence of their superiors, been allowed to act as dispensers. This is not only a wrong to the public but is an injustice to those employers who pay high salaries to secure efficient assistants. At first sight, every necessary guarantee on the above points appears to be afforded by the 15th clause of the new Act. It reads as follows : " And it shall be unlawful for any druggist, etc., "to employ any clerk or apprentice in any shop or store "for the sale of such poisons or in the dispensing of medi-"cines, except such clerk or apprentice be registered as "required by this act." It would appear then that registered apprentices, or as they are termed, " certified appren-"tices," are permitted by the wording of the above clause to dispense prescriptions, and as the qualifications necessary for registration as an apprentice are merely that he shall have a good moral character and a fair knowledge of English, French, Latin, and Arithmetic, (see clause 7) he is clearly not a proper person to be entrusted with the duties of a dispenser. I would therefore earnestly beg that this oversight may be corrected and that the clause be amended so as to make it an offence punishable by fine for an employer to allow any one not registered as a certified

8

clerk or Licentiate of Pharmacy to compound or dispense physicians' prescriptions.

Yours truly,

MONTREAL, 31st August, 1874.

Y.

To the Editor of the Canada Medical and Surgical Journal.

SIR,—You will confer a favor on your professional brethen in the Dominion if you will suggest with what satisfaction the bestowal of some Imperial honor upon a member of our profession would be received by the medical public of Canada.

When we consider the important services done to this our country by a class of men inferior to none in loyalty to Her Majesty's person and Government, men whose moral and intellectual influence has been felt from one end of the Dominion to the other, we consider that such an honour conferred would have a great influence for good on the profession at large.

We have amongst us at present one who is in every way worthy of the honour and dignity of Knighthood—I allude to Dr. Geo. W. Campbell, who, for his long and faithful services as a Professor in McGill College, his great success as a surgeon, his universal kindness in rendering assistance to every member of the profession, his untiring interest in the advancement of the Science and Art of Surgery, would seem in every way the most worthy recipient.

If, Sir, you will through your Journal make this suggestion generally known amongst the profession so that any necessary steps may be taken for the furtherance of its object, you will greatly oblige, amongst others,

Yours very sincerely,

M. D.

Proceedings of Societies.

CANADA MEDICAL ASSOCIATION.

The seventh annual meeting of this Association was held at Niagara Falls, Wednesday, 5th August, 1874.

The President Dr. Marsden, called the Meeting to order at 11 o'clock.

There were present Drs. Marsden, Quebec; Botsford, St. John, N.B.; Canniff, Toronto; Hingston, Montreal; Trenholme, Montreal; Yeomans, Mount Forest; Grant, Ottawa; Robillard, Montreal; H. H. Wright, Toronto; McDonald, Hamilton; Thorburn, Toronto; Thompson, Montreal; David, Montreal.

The Minutes of the last day's proceedings of the meeting of last year were read and confirmed.

Drs. Grant, Hingston and Wright were requested to take seats on the platform.

Dr.Canniff, Chairman of the Committee of Arrangements, reported as correct the credentials of Dr. A. A. Thompson, of Lansing, Michigan, and Dr. Edward Jenks, President of the Detroit Medical College and Professor of Diseases of Women, &c., &c., &c., as delegates from the American Medical Association, and Dr. H. P. Yeomans, Mount Forest, as delegate from the Union Medical Association of South Gray and North Wellington, and the President accorded them, in the name of the Association, a cordial welcome.

Letters of excuse for not being present were read from Drs. Dawson, C. C. Hamilton and Howard.

The President then delivered the following address :

GENTLEMEN :---Were I to consult my own inclination, I would not occupy any portion of the brief space of time allotted to your Annual Meeting by an address, but, as the tyrant custom requires it, I must conform, and will be

concise as possible. I will avail myself of the earliest opportunity which presents itself to thank you for the honor you have conferred upon me, in electing me your President, but I regret that language fails to express the depth of my feelings. It has often been my good fortune. during my long professional career, to have been complimented in a similar manner, but never in the same degree. When I see around me so many distinguished members of this Association who would have filled this chair so much better than myself, and when I look back and remember your -I mean our-happy choice of the able and eloquent chairman who presided over our deliberation during the first three years of the existence of this Association with so much tact, talent and success-the Hon. C. Tupper, M.P. C.B., &c.-I feel all the more inability to do justice to the office without your kind indulgence, although I will yield the palm to no man for professional zeal-my maxim having ever been, where the public interests of our noble and humane Profession were at stake,-Semper Paratns!

One of the subjects that will engage the attention of this Meeting is the proposed alterations of the By-Laws. The Committee appointed at the 5th Annual Session of the Association, held at Montreal, in September, 1872, to amend the Constitution and By-Laws, reported to the Annual Meeting held at St. Johns, N. B., on this day twelve months past, and recomended, "that the Plan of Organization of the Canadian Medical Association adopted at the Conference of the Medical Profession held at the city of Quebec, October 1867, and the Code of Medical Ethics, be continued without amendment;" and further recommended, "that a Constitution and By-Law be adopted instead of those heretofore in force." A copy of the labors of that Committee is now before you, entitled, "proposed alterations to By-Laws to be considered at the Annual Meeting at Niagara Falls, Wednesday 5th of August, 1874. - Having carefully examined the proposed alterations, I am of opinion that they will be a great improvement on the

present By-Laws, with some slight changes and additions.

In Ethics, for example : It is proposed "to continue the Code of Medical Ethics. without amendment," but no provision has been made in the proposed By-Laws for a permanent Committee on Ethics. Such a committee is in fact a necessity, to which, in my humble opinion, all cases of presumed infraction of the Code should in the first instance be referred for report before any public action is taken by the Association. or record made. This would prevent the odium which might attach to persons falsely charged; and would avoid the needless wounding of the sensibilities of such as were really innocent of the accusations brought against them.

So strongly was I impressed with this conviction, that I gave notice of motion in 1870, and, on the 14th Sept., 1871, carried a motion unanimously, and it was resolved, "that the Nominating Committee be instructed to name a Permanent Committee on Ethics, to be composed of ten members, representing each province of the Dominion." The Session, however, adjourned so soon after that no Committee was named at that Meeting. I would therefore respectfully recommend that, as it is proposed to continue the Code of Ethics, a Standing Committee on Ethics should also be added to the proposed By-Laws.

Registration, Medical Statistics, and Public Hygiene are all subjects which call for action, with a view to Legisla-

tion. Committees were named at the first meeting of this Association, held on the 9th and 10th of October, 1867, at Quebec, to report on the best means of obtaining these desirable objects. The Committee of Registration, of which I had the honor to be Chairman, reported, "that, after mature deliberation, they recommend, that this Association take the necessary steps to have carried through the Dominion Legislature an Act similar (in so far as it is adapted to this country) to the Medical Act of Great Britain, passed in 1858.

The Committee of Medical Statistics and Hygiene (both of which subjects were referred to the same Committee) reported on Hygiene alone, through Dr. Hingston, the Chairman, stating, "That there was a necessity for a comprehensive system of sanitary laws," and promised a report on Vital Statistics at a later period of the Session. A reference to the Minutes of the Association (so far as attainable) shows that nothing whatever has been done in the way of Legislation in this matter.

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Another Committee on Statistics and Hygiene was named at the Annual Meeting of 1873, held at St. John, N.B., of which Dr. Botsford, one of our indefatigable, intelligent, and zealous ex-Vice-Presidents is Chairman. He wrote to me on this subject in March last, as follows :---" I was named as one to bring the matter of Hygiene before the Dominion Legislature, especially looking to a registration of deaths and their causes, through the whole Dominion. For the Province of New Brunswick I have to report that, whilst Boards of Health are provided for every county, and a registration of marriages for the Province, this is all that has been accomplished; and a registration of deaths and their causes does not exist!"

Although, Gentlemen, I quite concur in the sentiments expressed by Dr. Workman in his address of welcome at our second Anniversary Meeting, that "neither the elevation, nor what is styled the protection of our profession is to be achieved by acts of Parliament,—and, that if we would be elevated, we must climb the steep ascent ourselves," yet there are certain subjects that demand legislation before we can make any useful application of them. Among these, I class Vital Statistics, Registration, and one uniform system of preliminary and professional education, examination and licensing. Committees have reported on all these subjects, and their reports have been adopted; and, as Dr. Tupper said in his address at Ottawa in 1870, a far higher step has been taken by resolving that it was for the interest of the public and the Profession, that one common portal of entrance should be established for the purpose of granting licences to practice."

Precisely the same opinions have frequently found utterance in the meetings of our elder sister, the American Medical Association, as will be seen by a reference to their transactions, from which, had time permitted, I might profitably have made some extracts. This is a subject that has occupied the best attention of various Committees since the formation of this Association. and resulted in the forming of the "Contemplated Medical Act for the Dominion of Canada," which was amended at the third Annual Meeting of the Association, held at Ottawa in September, 1870. It was again amended at the Annual Meeting held at Quebec, in September, 1871, and was finally referred to the Annual Meeting held in Montreal in 1872, each and every member of the Association having received in the meantime a printed copy of the same. This proposed Act has been a bone of contention-an apple of discord-to the Association ever since it was first introduced. In the Western Province of the Dominion, gentlemen, you have an Act based upon the English Medical Act, which is working most satisfactorily. The Province of Quebec, also, has an Act that needs very little amendment. The Eastern Provinces, however, of Nova Scotia and New Brunswick, which are younger in Medical Science and Literature, and have hitherto been almost without medical schools, are not so far advanced in medical sciences as the older Provinces of the Dominion, and are not ready to enter on the same platform as their elder brethren, and, therefore, at the Annual Meeting, held in 1872, it was resolved unanimously, to postpone the further consideration of the proposed Bill for two years. Thus it has been suspended, like Mahomet's coffin, between heaven and earth, for two years past, and will possibly come up for action at this meeting. Doubts have been expressed by lawyers, as well as legislators (and by no less an authority than Dr. Tupper), of the législative powers of the Parliament of the Dominion to pass any Medical Act for the whole Dominion, unless, or until previous concerted action had been taken by the Local Legislatures; and to this opinion I strongly incline. In the American Medical Association progress is being steadily made in that direction by State legislation, and I think the best thing we can do is to agitate the subject in each Province of the Dominion, and separately and gradually lead them up to the highest standard required.

Thus only can we hope to suceed in Dominion Legislation. I would, therefore, respec fully suggest that, when this matter comes up, some member will move that its consideration be indefinitely postponed and thus put an end to a fertile source of discord Let us carefully avoid. all medical legislative action for the present, for to my mind no greater blunder could be committed in this democratic age, than seeking legislation, as the sympathies of legislators generally, and especially the unscientific who compose the majority, are in favour of quackery and free-trade in medicine. Another subject, Gentlemen, to which I would call the attention of this Meeting is the great loss that the Association has sustained by the nonpublication of the Minutes of its proceedings for the past two years. Whether the Association has the means to publish the Transactions, Reports, Proceedings and other papers or not, the Minutes of our proceedings, at least in opinion, out to be in the hands of every member of this body. I trust we shall this day repair our error, and make any necessary sacrifice to publish them. The valuable unpublished papers which have been presented, read, and approved by this Association, and which must have cost their authors much study, valuable time and trouble, remain a dead letter,-a dumb record-a sealed book to the whole medical and scientific world. For this seeming neglect I know not whether the accomplished and industrious writers, or the reading members of the Profession at large have most reason to complain. Although this

Association was organized for the protection of the interests of the Medical Profession, and the maintenance of its honor and respectability, it also contemplated the advancement of its knowledge, and the extention of its usefulness; and shall it be said of us, that we have done nothing to promote these high and laudable objects because our transactions embrace none of the essays and papers which for originality, learning and profound research would be worthy of honorable place in any similar volume? Let us, gentlemen, this day, I repeat, wipe out this reproach, and either publish them, or return them to their respective authors, for such action as they may see fit to adopt, for nothing should be kept back or hidden in this progressive age. Progressive did I say? Yes, progressive! And it would be very easy did time permit, to shew the wonderful strides that medical art has made even in our own days. It has been raised from the level of a mere conjectural science to the status of a positive art. Mental agony and physical torture have now succumbed to bloodless and painless operations. Operations which formerly no amount of moral or physical courage could have induced the sufferer to submit to, are now endured with complacency.

Chemistry is a new science.

Were it possible to weld the link in the mortal chain which was so suddenly snapped asunder on the morning of the 29th of May, 1829, at Geneva in Switzerland,—or to revive the mortal spark in the poor boy of Penzance, Cornwall, who was a popular lecturer on Chemistry to the Royal Institution, London, at 22 years of age,—or to bring before this Meeting him who for seven successive years was the unopposed President of the Royal Society of London, Sir Humphrey Davy, he, like Rip Van Winkle, would find all the ancient landmarks swept away by the progress of that science which his genius had done so much to fructify and embellish. He would be a student still, Gentlemen, as we all ought always to be.

Notwithstanding the extraordinary strides that have been

made of late years in the Medical and Surgical arts and sciences, and the accessory branches of knowledge, and although the rewards are by no means equal to the responsibilities of the medical practitioner, nevertheless his sterling worth is not unfrequently recognized and requited.

Mr. Gladstone, at the dinner of the British Medical Association last year, raid a just tribute to our art, and said that but for the care and watchfulness of a succession of able physicians it would have been impossible for him to have gone through the fatigues of public life. It is, said he, among the wonderful and noble distinctions of your noble, illustrious Profession that, although its members may not receive that acknowledgement which awaits the soldier when he falls on the battle-field, yet they are to be found in countless numbers among the truest martyrs in the cause He further said truly, that medical of humanity. knowledge has advanced in recent years in a degree which is not, perhaps, paralleled in any other profession. There is at present a greater and more sustained earnestness of purpose, and a more general exaltation of the aims of medical men. And he concluded thus :-- This age is distinguished by an unbounded activity in all the sciences of observation. Of all these sciences yours is the noblest. It is given to you to study the relations between the wonderful body and the still more wonderful soul and mind of man. You tread that borderland in which the two come in contact. It is very easy to describe the post office or the railway system, but you have to deal with a thing far more subtle when you attempt to grasp human nature as a whole. Human progress is not to be described by formularies. It ' is only by the most patient observation that a sound and comprehensive knowledge on such a subject can be acquired. To you it belongs to seize the great opportunities and to accept the great responsibilities which attach to the Profession of which you are members, and to show yourselves worthy of the great vocation with which you are entrusted.

Apologising for having occupied so much of your valuable time, and again thanking you for the high honor you have conferred upon me (probably as a recognition of the part I took in originating and organizing this Association) I leave its perfection in your hands, Gentlemen, and in your hands it is safe. It is, I firmly believe, destined to promote the blessings of fraternal harmony, professional unity, and successful self-government. An Association such as ours-composed of Scientific Philanthropists-the residents of the frozen North and the sunny South ; the denizens of the forests, hills and dales. lakes and islands of a whole continent, animated by the most lofty and honorable impulses, casting their various and opposite opinions and prejudices together on the common altar of science, and uniting in one independent, cosmopolitan band, from Prince Edward Island to British Columbia-from the Atlantic Ocean to the Pacific, must and will be felt and heard. United, concorded action-no law can resist ;-no law-maker can repudiate.

Finally, Gentlemen, when I retire from this chair I shall remember that "the private station is the post of honor," and I beg to assure you that I shall always (whether present or absent) try to uphold the honor and dignity of our noble Profession, and especially of this Association.

When it was moved by Dr. Trenholme and seconded by Dr. Botsford: "That the thanks of the Association be tendered to the President for his address, and that it be referred to the Publication Committee," which motion was carried unanimously.

On the motion of Dr. Canniff, seconded by Dr. Wright, the following gentlemen were elected permanent members: Drs. Baxter, Cayuga; Mullin, Hamilton; H. P. Wright, Ottawa; and on the motion of Dr. Wright, seconded by Dr. Trenholme, Drs. John Turquand, Woodstock, Hugh McKay, Woodstock; Daniel Clark, Princeton, and D. A. Hart, Montreal. The proposed alterations to the bye-laws were then brought up and Dr. Botsford moved that they be considered, clause by clause, which was done, and were proceeded with as far as the Standing and other committees, and all passed with a few verbal alterations, when the Meeting adjourned for an hour.

AFTERNOON SESSION.

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The President assumed the chair at 3.30 p.m. The Minutes of the morning's Meeting were read and confirmed. On the motion of Dr. McDonald, seconded by Dr. Botsford, Dr. Malloch and Dr. Case, both of Hamilton, were elected permanent members.

The remainder of the bye-laws were then discussed and, with some amendments, all were passed, when Dr. Botsford, seconded by Dr. Canniff, moved, "That these by-laws, as amended, be adopted," which was unanimously agreed to.

The following gentlemen were then proposed and elected as the Nominating Committee : Drs. Grant, Baxter, Clark, Robillard, Hingston, Trenholme, McDonald, Turquand, with power to add to their number.

On the motion of Dr. Grant, seconded by Dr. McDonald, the consideration of the proposed Medical Act was postponed indefinitely.

On behalf of the Committee on Vital Statistics, Dr. Botsford stated he was not aware of any action having been taken.

Dr. Grant moved, seconded by Dr. Canniff, "That, in consideration of the best interests of Medical Science, it is desirable that a Medical conference should take place between the American and Canada Medical Association, at some Central point to be determined upon, and that the American Medical Association be advised as to the desirability of thus becoming more intimately acquainted, and affording an opportunity for the discussion of Medical and Surgical subjects on a common basis," which was carried unanimously. When Dr. Hingston, seconded by Dr. Botsford, moved, "That, in the event of such a conference being determined upon, it would be desirable that the secretary of the Canada Medical Society notify the various local Medical Societies, so that our Dominion might take part in a manner worthy of the occasion, and in keeping with the best interests of Medical Science," which motion was agreed to.

Dr. Trenholme then read a paper on Uterine Decidua, and Drs. Clark, Hingston, McDonald, Grant, Yeomans, Botsford and Sloane spoke on Dr. Trenholme's paper, causing a most interesting discussion.

Dr. Jenks offered some remarks as to the meeting of the two Associations, with thanks for the reception accorded him and his friend, Dr. Thompson.

The Meeting then adjourned till 8.30 p.m.

EVENING SESSION.

The chair was taken by the President at 8.30.

The Minutes of the afternoon session were read and confirmed.

On the motion of Dr. Canniff, seconded by Dr. McDonald, Dr. Mack, of St. Catharines, was elected a permanent member. Dr. Mullin presented to the Association a preparation of the skeleton of a double-headed monster, exhibited drawings of it, and read a lucid and interesting paper on its formation.

Dr. Malloch read the notes of a case of defective development; and, on motion, the thanks of the Association were accorded to Drs. Mullin and Malloch for their interesting papers.

Dr. Botsford exhibited a model of a plan he had adopted for relieving pain in moving patients, explaining the method, and a vote of thanks was given Dr. Botsford.

Dr: Trenholme then replied to the questions that had been put him, in the discussion on his paper, and another very interesting discussion took place, and a cordial vote of thanks was moved and passed to Dr. Trenholme for his paper and the interesting and instructive discussion it produced, and a request that he would hand it to the Publication Committee.

Dr. Turquand, seconded by Dr. Trenholme, proposed Dr. William Scott, of Woodstock, as a permanent member, -Dr. Scott, was unanimously elected.

Dr. Malloch read a carefully prepared paper on the Contagiousness of Enteric Fever, and a vote of thanks was accorded Dr. Malloch, with the request that it be given the Publication Committee.

The Secretary read a letter from Dr. Rosebrugh, stating that, owing to illness, he had been unable to prepare a paper to lay before the Association.

It now being 11 o'clock, on the motion of Dr. Botsford, seconded by Dr. McDonald, the Association adjourned till 9.30 to morrow morning.

SECOND DAY, THURSDAY, 6TH AUGUST.

The President opened the Meeting at 10.30 a.m..

Dr. W. Scott, of Woodstock, exhibited a pessary of his invention for retroversion and retroflexion of the uterus, explaining its uses and advantages; a vote of thanks was accorded Dr. Scott, and the matter referred to the Committee on Obstetrics.

On motion, Dr. J. Fulton, Toronto, was elected a permanent member.

Dr. Hingston, as chairman of the Nominating Committee, reported the following gentlemen as the officers for the ensuing year:

President	Dr. LeBaron Botsford,St. John, N.B.	
Vice-President for	OntarioDr. J. D. McDonald,Hamilton.	
"	QuebecDr. J. P. Rottot Montreal.	
. <i>u</i>	Nova ScotiaDr. Wickwire	
"	New Brunswick. Dr. G. A. Hamilton St. John.	
General Secretary.	Dr. DavidMontreal.	
Treasurer	Dr. RobillardMontreal.	
	r Ontario Dr. Malloch	
Local Secretary for	Quebec Dr. F. E. Roy Quebec.	
	Nova ScotiaDr. Morgan	

All of whom were unanimously elected, when Dr. Botsford returned thanks for his election to the office of President.

On motion of Dr. Thorburn, seconded by Dr. Mack, Dr. W. L. Copeland, of St. Catharines, was elected an ordinary member.

Dr. Robillard, seconded by Dr. Botsford, proposed that Halifax be the next place of meeting, ten voted for and ten against, the President gave the casting vote in favor of Halifax, and the question being put it was carried unanimously.

Dr. Botsford moved, seconded by Dr. McDonald, "That the same sum as was voted last year be given the Secretary, and that the Treasurer be paid his expenses," which was carried unanimously.

Dr. Hingston, on behalf of the Auditing Committee, reported having examined the Treasurer's books and accounts and found them quite correct.

Dr. Hingston offered a few observations on the methods of arresting hemorrhage which produced an interesting discussion, on which Drs. Mack, Sloan, Grant, Trenholme, Geekie and Turquand took part.

Dr. J. M. Fraser, London, Dr. Jno. Fraser, Southall, and Dr. Burgen, Welland, were, on the motion of Dr. Thorburn, seconded by Dr. Baxter, elected permanent members. Dr. David then read a paper,* prepared by Dr. Howard, on the Pathology of Tubercle and Pulmonary Consumption, when it was moved by Dr. Oldright, seconded by Dr. Rosebrugh, and unanimously resolved, "That, while regretting the absence of Dr. Howard, the thanks of this Association be given him, and his interesting paper handed to the Committee of Publication.

Dr. Botsford, seconded by Dr. Wright, moved, "That the thanks of this Association are due and be given to, Messrs. Colburn and McOmber, the proprietors of the Clifton House, for their kindness and liberality in having reduced their fares, and for having given their hall for the Meetings of this Association free of charge," which was carried.

Moved by Dr. David, seconded by Dr. Oldright, it was resolved, "That Dr. Botsford, President elect be authorized to name the Committee of Arrangements for the next Meeting at Halifax.

On motion, the President left the chair, and Dr. Mc-Donald was requested to take it, when Dr. Baxter, seconded by Dr. Thorburn, moved a vote of thanks to the President for his able conduct in the chair, which motion was carried; Dr. Marsden returned thanks.

A vote of thanks was unanimously passed to the General Secretary, the Treasurer, and the other Officers of the Association, and the Meeting adjourned.

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A. H. DAVID, M.D., Ed., General Secretary.

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*This paper will be found at p. 97.

Periscopic Department.

Clinical Lecture on Amyloid and Fatty Liver in Relation to Operations. By RICHARD BARWELL, F.R.C.S., Surgeon to Charing-Cross Hospital.

GENTLEMEN,—I have on several occasions pointed out to you certain cases of prolonged and severe suppuration produced by caries and necrosis or by disease of joints, and have shown to you that in several of these the liver has been plainly and palpably enlarged, sometimes to a very great extent. I will now give you shortly the details of two such instances as a groundwork to the study of the forms of malady which produce this enlargement.

CASE I.—Caroline L—, aged four years and a half, was admitted into Charing-cross Hospital on July 5th, 1870, under the care of Mr. Hancock, with hip disease. The case was severe, and, in spite of treatment, became worse; eight months after admission the child was greatly reduced by excessive discharge from large abscesses extending down the thigh. Mr. Hancock proceeded to excise the head of the femur, but during the operation the bone broke in two places; it was, in fact, a mere shell. The limb was placed on an interrupted splint; the bone reunited; the patient gained in flesh and strength, and left the hospital on June 4th, 1872, with still an open and discharging sinus on the outer side of the thigh, and another at the operation wound.

She was readmitted into the hospital on Sept. 4th, 1872, under my care. The left leg was very much wasted and shortened. Six open sinuses communicated, three with diseased bone at the upper part of the femur and acetabulum, and three lower in the thigh at the places of fracture. She was much wasted and anæmic; the skin of an opaque yellowish hue; the pulse, very small, varied at different parts of the day and night from 98 to 130; appetite bad and capricious. The liver was much enlarged, extending

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through a considerable part of the right lumbar and a great portion of the umbilical region; it was smooth and hard. Urine healthy. No perceptible enlargement of the spleen. There was no evidence of tubercle in the lung.

Having watched this child with great care, I concluded that, in spite of the unfavourable condition, it was my duty to propose removal of the limb at the hip. Some time elapsed before consent could be obtained, but late in October it was given.

On Nov. 1st I examined her carefully. She was emaciated to a mere bag of bones, and was evidently weaker. The liver extended to a finger's breadth of the crest of the ilium, thence crossed hardly half an inch above the umbilicus, and disappeared under the left hypochondrium; it was hard but smooth; its shape apparently not changed. No evidence of affection in any other organ.

On the 2nd November I amputated at the hip, and, owing to care in my arrangements and the skill of my assistants, barely an ounce of blood waslost. The child rallied rapidly; a few drawbacks occurred in the first fortnight, but after that her progress was uninterrupted and rapid. She left the hospital on Feb. 6th, 1873.

In April, 1874, I examined this patient, having seen her occasionally in the interval. She was, save for the loss of the left limb, a very healthy, strong-looking girl. The liver was examined both by myself and Dr. Pollock, and was found to be perfectly normal in size, and its functions duly performed.

Caroline T—, aged fourteen, was admitted on the 8th of April, 1873, into Charing-cross Hospital, under my care, suffering from a recurrence of inflammation after old hip disease. The child was greatly emaciated and anæmic; the left hip was much swollen, and around the joint was deeplyseated matter; also the inguinal region was swollen and fluctuated, showing the presence of pus within the pelvis. Several sinus mouths were situated around the trochanter and on the outer side of the thigh. She was treated for six weeks by rest and tonics, in the hope that such improved condition might benefit, but at the end of that time she was found to be weaker and thinner, while the abscesses, especially that within the pelvis, had become larger. She was then more fully examined. The probe was passed into three or four of the sinuses, and two of these were found to enter a cloaca and so pass to a necrosis situated deep in the head and neck of the femur. It was evident that unless this could be removed the child would die of exhaustion. At this time the liver was greatly enlarged; it extended downward and through two-thirds of the right lumbar region; in the middle line its edge was two fingers' breadth above the umbilicus; it was smooth and considerably indurated. The urine was nearly neutral, and contained phosphates, but neither albumen, sugar, nor any casts of the tubuli; there was no diarrhœa; no enlargement of the spleen could be detected.

July 21st.—She was placed on the operating table, and, chloroform being administered, it became evident that the hip was anchylosed (true anchylosis); but the central parts of the head of the bone being necrosed, and there being a large collection of matter within the pelvis, I nevertheless made a semilunar incision behind the trochanter, as for resection of the hip, sawed through the neck of the bone as close as possible to the pelvis, applied a trephine to the truncated head, and with it cut out the necrosis, perforated the acetabulum, and let out of the pelvis a large quantity of dark-coloured pus.

The child rallied from the operation with difficulty, but after the first few days went on very well, regaining appetite, and beginning to put on flesh, till two months after the operation, when a patient having undergone the operation for ruptured perineum was placed in the same ward. The considerable fetor arising from this case affected her markedly; the discharge, hitherto diminishing, increased; the appetite failed, and she began to lose flesh. Removal to another ward changed all these conditions, and she went on uninterruptedly well until the 6th of March, 1874, the date of her discharge. At this time the child was comparatively rosy and stout; the liver had very nearly gained its normal size, and its functions were duly performed.

Both these cases are operations somewhat remarkable, especially the latter (for I am not aware that any such has been performed or described); yet it is not to that part of the subject to which I would now direct your attention; but rather to the condition of the liver and other abdominal organs.

A patient who has suffered long from free suppuration, whatever be its origin, falls into a state of considerable cachexia : the body loses much of its fat ; the skin becomes pale, of an opaque hue, often also dry, rough, and inelastic. In spite of the general emaciation, the abdomen, more especially of children, is generally tumid; percussion returns over the greater part of its surface a loud, hollow note. On passing, however, to the right side, this loud note will be dulled over a certain distance below the hypochondrium according to the extent of enlargement; occasionally, as was the case in the girl C. L----, this dulness, marking the extent of the liver, will reach as low as the crista ilii, or close to it. By using the mode of manual examination called "palpation" you will find the edge of the viscus, and feel its surface more or less distinctly according to the thickness of the abdominal walls. Observe that the surface of the gland is quite smooth, and the organ not altered in shape, save that its lower edge may appear rather rounder and thicker than usual; while again, in some cases, the organ seems firmer and harder, in others softer, than normal.

There is, then, in these cases a uniform increase in size, which does not affect by pressure or obstruction the portal circulation, since it is not accompanied by ascites; and though it may diminish, it does not annihilate the secreting function of the gland, since the fæces are coloured with bile, and since there is no jaundice.

This enlargement is due to the deposition in the constituents of the organ either of oil-globules (the fatty liver), or of a material called amylaceous (the amyloid or lardaceous liver). It is not my intention now to detain you with a minute description of the pathological anatomy of either of these states. I need only say that the latter consists in the gradual infiltration of the structure with a material which appears to consist of homogeneous molecules-apparently a low form of protein, which hardens, thickens, and whitens the organ, and in some cases no doubt destroys its function. The tissue thus affected is changed from its normal stage of high organization into the lowest type of organic matter, which hardly possesses life or function, since it can scarcely undergo change-with difficulty even that last change of dead organism, putrefaction. Therefore, as you will see at once, change from this state back to healthy condition would seem barely possible, and indeed most writers on this subject consider the malady irrecoverable. On the other hand, fat in the shape of oil-globules, is frequently present in the liver as a normal and temporary sequela of absorption from the intestine of oily ingesta. The accumulation of such substance in the cells of the gland to a morbid extent may be due to a variety of causes : it is common in phthisis and in heart disease, probably as a result of interference with the changes which the blood should undergo in the lung; it is also not unusual in wasting suppurative disease as of bones or joints. The tendency thereto, is, I believe, increased, especially in children, by confinement to bed, combined with the high feeding which is usually employed in such cases. Since, then, in healthy life, fat is frequently present in, and as often removed from, the liver, it is plain that recovery from its morbid accumulation in that organ is a much more easy process, a far more likely event, than restoration to the normal state of a liver infiltrated with so immobile a material as that which constitutes the amyloid deposit. Therefore we are often presented with certain problems which are at once of high

importance and of extreme difficulty. The first concerns our power, or want of power, to discriminate during life between these two forms of liver enlargement in the cases we are considering; the second, our faith, or want of faith, in the power of nature to cure the secondary malady if it be amylaceous, when its exciting cause, the source of suppuration, has been removed.

Concerning the former problem, I can only say that our means of differential diagnosis are very imperfect, the greater hardness or softness of the liver being our chief guide; and I need not tell you that such a sensation conveyed through abdominal walls may be deceptive, especially if those walls be thick. But fatty liver does not reach the size to which an amyloid organ may attain, as exemplified in the cases above given.

About the second problem much might be said if space allowed me to quote and to remark upon the views of many authorities. The whole balance of opinion is that amyloid disease, once commenced, is of necessity a progressive and fatal malady. With this conclusion, as far as the liver is concerned, I cannot agree; but it is impossible to prove absolutely such position, because if a person having an amyloid liver recover there occurs no opportunity of showing by chemical or microscopic examination the condition of the organ; and this is the position to which I am forced in regard to the above cases. The remarkable hardness and size of the organ, together with the condition of the patient's skin, &c., convinced me that the enlargement of the liver was in neither case due to fatty change; but I cannot prove it.

Although, then, it may in some cases be impossible to diagnose with certainty during life between these two forms of enlarged liver, we have, nevertheless, a certain and sure guide to practice. Since prolonged suppuration causes such enlargement, the liver is in every case to be carefully examined, as are also other organs, for the liver itself is not often attacked alone by the amyloid change. This organ

may, as to size, be easily interrogated. Any considerable enlargement of the spleen may be detected without difficulty in young persons. Albumen in the urine is an early symptom of the amyloid kidney, and not unfrequently the peculiarly altered epithelium and sometimes casts may be found sufficiently characteristic to give the key to the form of Bright's disease whence the albuminuria arises. Amyloid intestines are in their earlier phases with difficulty made out. Obstinate, even recurrent, diarrhœa is a suspicious sign, and careful observation of the excreta may disclose cast off villi, even clumps of villi, with the characteristic hyaline appearance, and this even without any pus or sign of ulceration. If, after careful investigation on these points, the absence of any sign of amyloid disease save the enlargement of the liver be determined, any operation for the removal of suppuration is not only justifiable, but our imper-ative duty. Without operation the patient must die; after operation, however hard, large, and changed be the liver, there is a fair, indeed a considerable chance of recovery, as the above cases sufficiently indicate.-Lancet.

The Therapeutical Action of Quinine.

M. Sée has been delivering at the Charité a series of clinical lectures on the therapeutic action of quinine, some notes of which may be of interest. He is one of the most advanced scientific therapeutists, and believes that the action of drugs in disease may be predicted and explained by their physiological action in health. It is impossible to give more than a general idea of the views advanced and ably expounded by references to the natural history of the various diseases and the known action of quinine in their different forms, especially with regard to malarial fevers and acute rheumatism. His general conclusions are as follows:—

In health quinine has a threefold action; firstly, it diminishes the frequency and force of the action of the heart; secondly, it lowers the tension in the arterial system; and, thirdly, it lowers the temperature, or prevents its elevation by exercise &c. Whilst recognizing its action on the amœboid movements of the white blood-corpuscles, as shown by Cohnheim, Binz, and others, he does not regard this as of great importance.

In an able analysis of the various forms of malarial fever. and the teachings of experience as to the value of quinine in each, he concludes that the drug cannot be regarded as a specific or counter-poison as-(I) it does not prevent malarial poisoning when taken as a prophylactic; (2) it does not prevent recurrence after a variable period ; and (3) it is useless in some of the most fatal forms, especially where the fever tends to assume a continued type. Moreover, he points out that in other fevers which present the characters of periodicity and the occurrence of initial rigor -e.g., urethral fever from catheterism,-quinine has an equally beneficial effect. He believes that the effect of quinine in ague is due to its three-fold action, exerted chiefly during the period of rigor: by its action on the heart, it diminishes its frequency and force; on the peripheral arteries, it lowers their tension and produces dilatation; on the spinal cord and vasomotor centres, acting as a sedative, it tends to diminish their excitability; and, la stly, it exerts a direct cooling action on the system generally ;---. the latter, however, being the least important factor."

In acute rheumatism, M. See considers it by far the most valuable medicine; and states that he always returns to it. with benefit after the trial of all other methods of treatment. Here, again, he sees in its physiological action the most precise indications for its use. Especially in its effect on the spinal cord-in lowering its irritability, and thus diminishing the sensibility to pain; and lessening reflex excitability, and thus reducing irritation and the afflux of blood to the inflamed joints-does he consider that its value lies, its action on the vascular system and in lowering temperature being also beneficial. The dose which M. See recommends is from $\frac{1}{2}$ to $1\frac{1}{2}$ grammes (or 8 to 24 grains) nearly) in the day : increasing it, however, to 2 or 3 grms., or even more if needful. It may be mentioned that this mode of treatment is adopted by a large number of the leading physicians in Paris, either exclusively or with other means; and they all appear to be unanimous in its favour. It is only in the acute stages that M. See considers it beneficial, except for the relief of pain ; and in this respect it is also useful in gout .- Lancet.

Medical News.

THE LATE VACCINATION CASE.

[We have received from Dr. Larocque, Health Officer, the following particulars concerning the vaccination case, the facts of which are given in our last number. In the first place he explains that, with a view of obtaining a new supply of thoroughly reliable lymph, he procured, in May last fresh lymph in tubes and on ivory points from Dr. Martin of Boston, who guarantees it to come from the celebrated Beaugency Stock. From this lymph, a fine heifer was inoculated in the presence of several medical men. The result was perfectly successful, and at the end of eight days Dr. Larocque charged some ivory points and vaccinated several children and another heifer, the resulting matter was furnished to a great number of town and country physicians, almost all of whom have spoken to him in the highest terms of the success they have met with in using it, and not a single complaint has been heard.-Ed.]

At the meeting to investigate the case there were present Drs. Howard, Rottot, Ricard, Mount, Trenholme, Grenier, Lussier, Desrosier, Dugdale and Larocque besides Drs. Coderre, Gariepy, Gauthier, Craig and Crevier. Dr. Rottot took the chair.

Dr. Larocque explained the purpose of the meeting. He said that to satisfy the public upon this question of vaccination it was important to decide whether the child had or had not really suffered from the effects of vaccination. The chairman of the Health Committee had desired the Health officers to report to him upon the case, and he therefore hoped that this meeting would so sift the case as to enable them to give a clear and lucid explanation of the whole matter.

Dr. Roy was then questioned by different members, the following being the principal points brought out.

5. E.

To Dr. Ricard. Q.—You say that on the 13th July, 18 days after vaccination, the scab was perfect, and you asked the mother to keep it for you?

Ans.-Yes.

Q.—After the scab came off, there remained a depression one or two lines deep, was this depression as large as a five cent piece ?

Ans.-It was much less.

Q.—You are aware that in the month of July the majority of young children are affected with diarrhœal complaints ?

Ans.—Yes, and I have had such cases but not until the roth July.

Q.—Do you know what this child was being fed upon?

Ans.--As the parents were poor, the child eat along with the other members of the family, beef, pork, potatoes, milk, &c.

Q.—There are several bluish spots around the knee. Do you not think these due to the remains of some former eczema or impetigo.

Ans.-They are from splinters from crawling on the floor.

To Dr. Dugdale. Q.—Did you observe any inflammation in the axillary glands?

Ans .- No.

Q.—Did you vaccinate the child with lymph or from the seab ?

Ans.-From lymph on an ivory point.

Q.—In how many places did you insert the lymph?

Ans.—In two places but only one took.

Q.—At what period did inflammatory symptoms show themselves in the arm?

Ans.—Four days after vaccination and continued to increase until the tenth day from which time they diminished.

To Dr. Trenholme. Q.—Have you much experience in vaccinating ?

Ans.—Very little. I have only been in pratice since the month of May.

Q.—As a bandage pressing upon the scab would be very liable to induce suppuration, can you say if it was tightly applied ?

Ans. -I do not think it was.

Q.—The slough removed with the scab, was it of cellular or of muscular tissue ?

Ans.—The slough was about one line in diameter and two lines in depth and was composed of muscular tissue.

Q.—What was the pulse and the temperature when the child was so ill that you feared it would die?

Ans.—The child was too weak for me to ascertain either one or the other.

After these and other questions Dr. Howard addressed the meeting as follows :---

"We have met to enquire into the facts connected with a case in which the opponents of vaccination have stated over their own names in the secular press that a child had suffered so severely from vaccination that its life was in danger - that the symptoms resembled those of poisoning by a dissection wound. We have heard the evidence of the gentleman who vaccinated and attended the child, and of the two gentlemen who examined the child 17 or 18 days after the operation had been performed, and we have examined the child — and I must say that it is a matter of surprise to me that gentlemen of such standing in our profession should have published such a case as proving the injurious effects of vaccination. On so grave a subject - one so intimately connected with the welfare of humanity - we have a right to expect that scientific men, before venturing to make statements over their own signatures in the newspapers, should take care that they have a reliable basis of fact upon which to rest their authoritative statements. From what we have just heard, and after a careful examination of the child, the important facts of the case may be thus summed up :---

"A child 13 months old, having only six teeth, is during the hot weather of June vaccinated. On the fourth day thereafter, when the vaccine vesicle had appeared on the arm, diarrhœa and fever set in, but although the diarrhæa continued until the 9th of July, no other extraordinary symptom had been noticed before that day, and then the inguinal glands were found enlarged and the scrotum inflamed. The attending physician did not examine whether there was also excoriation about the anus or in the fold between the thigh and the perinæum. Three days later, so pleased was the attending physician with the progress of the case, that he ordered a bandage to be applied to the arm to preserve the scab; but next day on removing the bandage, he found the found the scab adhering to it, and upon the under surface of the scab a piece of mortified 'muscular tissue.' These are all the facts upon which the grave charges published in the *Minerve* are based; and they appear to me easily and satisfactorily explicable upon general pathological principles and experience.

"The concurrence of diarrhœa and fever on the fourth day after vaccination, with the appearing of the vesicle on the arm was a mere coincidence. What improbability is there in the idea that a teething child should during the hot weather, when diarrhœa is usually so prevalent as to be all but epidemic, suffer from febrile diarrhœa? All the more, that the child's diet consisted of meat and potatoes, and other articles partaken of in common with the rest of the family.

"Then, as to the enlarged condition of the inguinal glands and the inflammation of the scrotum, which have been adduced as evidence of the injurious effects of the vaccine virus, such a statement is unfounded. There are anatomical reasons which disprove it. The glands situated in the neighborhood of the irritated or poisoned part and receiving the lymphatics from it are the glands which should have suffered first and chiefly. Yet in this case the inguinal glands, having no direct anatomical connection with the arm or its lymphatics were inflamed. And the correct explanation of this state of the glands is probably simple enough. The diarrhœa became associated with excoriation of the anus and adjacent parts, as so frequently happens, and the local irritation conveyed to the injured glands induced inflammation in them. Superficial inflammation and excoriation of the scrotum is a frequent attendant upon diarrhœa in young children and such was unquestionably its relation in this instance. "In view of these facts, I would like to move-

Resolved — "That after having carefully examined the child of Widow Leblanc, said to have been seriously affected by the effects of vaccination, this assembly is of the opinion that there has been no proof of such being the case."

Dr. Mount seconded the resolution, and after a few further observations it was carried by a large majority of the members present.

Dr. Coderre objected to any such resolution being passed.

Dr. Ritard.—On the contrary, after the prolonged investigation which we have just made, we can, with full knowledge of the facts, pronounce upon the present case. And besides, it is our duty to do so. The community has been alarmed by the exaggerated and highly colored reports furnished to the public papers, and the public look to us for such an expression of opinion as shall represent the truth of the whole matter. It behoves us therefore as men to express such opinion so as to allay those fears which have unfortunately been aroused in the public mind.

Dr. Trenholme.—I fully concur in Dr. Howard's resolution and I would add that the cachectic state of the child is abundantly shown by the numerous cicatrices to be seen upon its body. Dr. Coderre and his followers ought to follow the code of Ethics which govern medical men all over the civilized world. We should find means to make this code generally understood and to punish in some way all conduct contrary to the rules adopted by the profession. Scientific men alone are capable of discussing matters of this kind, and to appeal, as has been done to the public, can serve no good end, and such a course is unworthy of any medical man, and of the noble profession to which he belongs and whose honor he ought to have at heart.

Dr. J. W. Mount.—I agree thoroughly in the resolution of Dr. Howard and will second it with pleasure. If Dr. Coderre, who has just said that the arms he will use against us will be those of courtesy, chooses to continue insulting us in the public papers, and imputing to us sordid motives because we do not think like him, why, let him do so: for my part, I shall give him more credit than he gives us, and will admit that his opposition to vaccination is at least conscientious.

CANADA

Medical and Surgical Yournal.

MONTREAL, SEPTEMBER, 1874.

HONOR TO WHOM HONOR.

We publish elsewhere a letter from an esteemed confrère in which he makes a suggestion well worthy of the consideration of every member of the profession. Imperial honors, such as that suggested by our correspondent, have been conferred already upon eminent Canadian soldiers, Canadian jurists, and Canadian statesmen-men who have given noble aid in developing the destinies of this Canada of ours, in the field, the forum, and the Parliament. The dignities bestowed upon these gentlemen have been duly earned and honorably borne. We are not sufficiently democratic to undervalue such distinctions, and there can be no doubt that every new honor thus conferred by Her Most Gracious Majesty upon some one who has proved himself a patriotic Canadian by having done a work beneficial to the country at large, is felt by every true compatriot as an honor conferred upon his country and upon himself. Is it alone in a military career, or by services as a learned judge, or by advancing our commercial interests, or by the perfection of statesmanlike measures, that services can be rendered to be fittingly rewarded only by public recognition from the source of all Honor? Surely In England, it has long been the custom to encournot. age the medical profession by the selection of a few of its most distinguished members to be the recipients of some time-honored titular distinction - of late years, indeed, such marks of approval have even been more freely showered, and have always met with the most cordial approval on the part of the public, showing the increasing estimate

in which distinguished merit in our profession is now held. We cannot, therefore, but think that a more graceful act. could not possibly be performed by His Excellency the Governor General, than the recommendation to Her Majesty to bestow the dignity of Knighthood upon someprominent member of the profession in Canada. He who has been mentioned by our correspondent is the one aboveall whom we believe every medical man in the Dominion would rejoice to see the first to be thus honored. Dr. Campbell has labored in this country for nearly forty years, during which time he has acquired for himself, as a surgeon, and as a teacher of the Art, an extended American and even European fame. The benefits conferred upon the country by the labors of such a man, to whom every town and country-side in Canada is indebted through the ability and skill of his many pupils, are simply inestimable. In thus honoring Dr. Campbell, honor would beconferred upon the profession of which he is a distinguished ornament, upon McGill University (the pioneer university of Canada), of which he is one of the main supporting pillars, upon Montreal, which has long been proud of his great reputation, and lastly upon the Dominion of Canada, where his name is a household word.

MEDICAL PUBLICITY.

In view of the result of the examination into the facts of the recent vaccination trouble in this city, we cannot refrain from very severely blaming those who followed the unprofessional course of laying directly before the general public that which it was only only fitting should have been submitted to medically educated men alone. One gentleman drew attention to this unusual and improper proceeding at the meeting before alluded to. Dr. Roy rushes intoprint to earn a short-lived notoriety by directing attention to himself and his wonderful diagnostic discovery. In this he is backed by Dr. Coderre, always ready to-

appear when he thinks he has a peg, even the very slimmest, upon which to hang an argument against vaccination, and thus they continue writing long tirades and exciting the public mind by what to the uninitiated appear as the symptoms produced by a deliberate septic poisoning. It is hardly necessary to repeat that these tales thus manufactured - the outspring simply of a disordered imagination — could not bear the light. Every symptom exhibited has been clearly shown to have been due and traceable to causes entirely unconnected with the vaccination, and the result only exhibits either the absence of the knowledge or the appreciation of the simplest clinical and pathological facts, or wilful distortion of the facts as found. As regards the author himself of this unfortunate case, perhaps his youth and inexperience may claim for him an acquittal on the former ground, and as regards the other, who ought to have known better, we can hardly bring ourselves to believe the latter, but suppose he must have been so super-saturated with the prom-inent idea of the injuriousness of vaccine, that where this is concerned he has lost all power of judgment. None so blind as those who won't see.

To publish such cases and discuss such questions in the secular press is an offence against the profession. If the differences of opinion amongst medical men on this point are thus to be discussed why not those of any other? Are there not many other points in medical practice on which there is great diversity of opinion? Is that any reason why one of the minority on any such point should be permitted to air his views, and that in the most offensive manner, in the daily journals?

We hope that the signal disgrace which has befallen Dr. Roy in this his first attempt at publishing his medical observations (?) may serve to prevent his again thus erring against all propriety and professional decency; but his supporter is an old offender in this way and is not so easily reached. It is a matter which should be taken up by the Societé Medicale, and we should be glad to hear that this body had expressed its disapproval in no undecided manner of this breach of one of the best understood rules of Medical Ethics.