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Original Articles

THE UNTOWARD RESULTS OF DELAYED OPERATIONS AND OF INCOMPLETE OPERATIONS.*

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The subject which I have chosen for my paper is of interest to every practitioner of medicine, whether he be a specialist or engaged in general work. I speak from the standpoint of one who has confined his attention to general surgery for a considerable number of years, and there are one or two considerations which prompt one to choose this theme. In the first place, a surgeon, apart from his hospital wards, obtains his patients through a large number of practitioners, and it is quite obvious he must see a larger series of surgical complications than any of the individual physicians who may be of his clientele. It would consequently follow that the surgeon would be in a better position to argue from the general to the particular and would have impressed upon him for example the deleterious effects of undue delay in seeking relief by operation more forcibly than would be appreciated by the practitioner in charge of an individual case. Moreover it is a somewhat delicate matter, when the life of a patient is in grave danger, to argue as strongly as one should that the fatal result, which confronts one as a probable issue, might not have occurred had surgical interference been sought early enough. Many physicians are just as keen for early operative interference in these cases as the

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most progressive surgeon, but there still remain a number who unwittingly jeopardise the life of the patient by failing to appreciate the importance of calling in the services of a surgeon at a sufficiently early date. It occurs to me, therefore, that, when certain definite conclusions are arrived at concerning the necessity or otherwise of early operation, the surgeon should not wait to emphasize his opinions over the bedside of the patient, but should state his views with no uncertain sound, bolstering up his arguments by reference to his own experience as set forth in his clinical records. The responsibility must be shouldered in individual cases by the physician and surgeon conjointly and whilst it would be an impertinence on the part of the surgeon to suggest to his colleague that, prior to the consultation, the treatment had been in his opinion along wrong lines, yet some opportunity must be taken to impress the profession with the logical conclusions which have been arrived at from the surgeon's standpoint and which would in his belief have changed the issue in many instances had the facts been appreciated by the medical attendant at an earlier stage in the case. There is another class to whom we owe a duty in this respect. I refer to the general practitioner in outlying districts in poorly settled portions of the country, where often, because of the distance to be travelled, or the expense which would have to be incurred, it is impossible to call a surgeon in consultation, and where the general practitioner himself must undertake the operative procedure when it becomes necessary. I believe these practitioners in country districts will sooner or later come to realize that in the cases to which I refer, early operation is not only the safer procedure, but is always a simpler undertaking and is more likely to succeed if proceeded with before serious complications have arisen. Lastly I may point out that where surgical interference is undertaken late and fails, it is surgery that is blamed for the result when often the responsibility should actually lie with the medical attendant who has not realized that operative procedure was indicated at an earlier date in the case.

When one embarks on a consideration of this theme, one realizes that the whole field of surgery might come under review and generally speaking the moment any operation is demanded, then the sooner it is carried out the better. My object however is to deal mainly with a class of cases concerning which there has been considerable controversy in the past, but about which there should now be absolute agreement. If that agreement is to be reached however, it must be arrived at by careful study of the results obtained by the surgeon along with those obtained by purely medical means.

To illustrate my meaning I may refer to appendicitis. A physician may have an extensive experience and he will tell you that he has never lost a case of appendicitis and yet he has seldom required the services of a surgeon. On the other hand if you ask any surgeon of experience to-day he will tell you of many lives lost because operation was delayed and one is convinced that if the physician mentioned above stopped seriously to consider the statistics which any general surgeon could furnish regarding operation in appendicitis he would never again let a patient with a definite attack go twenty-four hours without operation because the risk he runs is too great.

There are many emergencies in which the necessity for immediate operation is quite obvious. Thus when hemorrhage is taking place from a severed blood vessel it is obviously essential to control the bleeding point if possible. The necessity for immediate operation is quite as obvious in the case of severed nerves, but this fact is perhaps not as clearly recognized. We may conclude too that immediate operation is indicated when a typhoid ulcer of the intestine has perforated, or if there has been a rupture of the stomach or intestine into the peritoneal cavity from any cause, traumatic or otherwise, or in a case of strangulated hernia. On the other hand there is another class of cases regarding which there must still be some controversy and concerning which very definite and very different views may be held by those who have studied such cases conscientiously and with ability from every point of view, such for example as the indication for operation in Graves' disease or the relief by operation of pyloric spasm in infants. wish, however, to emphasize in this paper the deleterious effects of delayed operation and the baneful results of incomplete operations in cases regarding which there is perhaps less material for controversial argument, but concerning which we must admit the results possible by surgical intervention are often not attained because operation is postponed unduly or carried out inefficiently.

I will confine my remarks mainly to two series of cases, first, those in which we undertake operation in inflammatory conditions and those in which we operate for malignant disease.

First, then, we may consider certain inflammatory conditions which do not brook delay. I have referred already to appendicitis and I may add a word or two further with regard thereto. One must appreciate the fact that the technique of the operation for appendicitis has been considerably modified of recent years and the effect of this has been to reduce the mortality more particularly in the cases operated on late. For example, we no longer wash out the peritoneal cavity, but confine our attention to the seat of local

infection, and provide drainage if necessary, being always careful to disturb the general cavity as little as possible. More recently the technique has changed as regards the treatment of the appendix in pus cases. At one time it was the rule when a localized abscess was discovered to leave the appendix, which, it was thought, might form part of the wall of the abscess. The argument was advanced that we should not destroy nature's barrier by excising the appendix. There are two considerations which, however, were forgotten in this routine, one is that the conditions necessary for confining the infection to a definite district are different in the closed peritoneal cavity and in the cavity where drainage is provided, and the other is that by removal of the diseased appendix the most important factor in maintaining the local infection is removed. We have learned by actual experience that it is best to remove the appendix and establish drainage; since adopting this method of procedure the writer has never seen general peritonitis arise from a local abscess and one finds that most surgeons are now adopting this There may be very exceptional cases, where one cannot remove the appendix, such as in one instance, where the cecum and surrounding structures were so edematous that one was unable to locate the appendix after considerable manipulation, and one thought it prudent to desist, but these cases are rare and in the vast majority of instances the appendix can be and ought to be removed. In the author's clinic importance is also placed on the Fowler position and continuous saline injection per rectum in cases of general peritonitis.

Whilst however a better technique has lowered the mortality in advanced cases we still recognize the fact that the main cause of the fatal issue in individual instances is delay. One of the most recent analyses of a large series of cases is that of McWilliams of the Presbyterian Hospital, New York, for the years 1906 to 1909 inclusive. He reports the result of 1,411 operations for appendicitis in that hospital. Of 512 operations in the chronic and relapsing condition there was a mortality of 0.5%. Of the 687 operations in presence of acute conditions there was a mortality of 9.8%. The following table shows that the mortality increases enormously after the first day of the disease:

Day of Disease	No. of Cases	Died	Mortality Per Cent.	Combined Statistics	No. of Cases	Died	Mortality 1 er Cent
1	135	5	3.7	On or before the second	280	14	5.0
2 3 4 5 6 7 8 9	145	9	6.2	day	051	32	12.7
3	103	8	7.7	From the third to the	251	52	12.7
4	72	13	18.0	sixth day inclusive			
5	55	8	14.5	li e			
6	21	3	14.2				
7	48	10	20.8	From the seventh to the		10	00.0
8	11	$\frac{2}{1}$	18.1	tenth day inclusive	79	16	20,2
	5	1	20.0	ļį.		1	
10	15	3	20.0	From the tenth to the		_	1 - 0
11	4	1	25.0	fourteenth day inclusive	52	8	15.3
12	5	1	20.0	-			Į
13	1	0	.0	11		ľ	
14	27	3	11.1				
17	1	0	.0	All acute cases operated		Ì	
21	5	Ŏ	.0	upon after the sixth			
Data Miss- ing	34	1	.0	day	156	21	13.4
l'otal	s 687	68	9.8	1]		1	,

Our own statistics would conform very closely with the above, and the fact is generally recognized that the mortality increases with delay; yet this fact is not appreciated in its full significance, otherwise there would not continue to be so much delay in calling in the services of a surgeon. As already stated, the physician is naturally guided by his own experience, but we insist that the results of surgery must always be more conclusive because of the larger opportunities afforded for the study of the harmful effects of delay. A physician may carry a large number of cases through successfully without operation and may even be fortunate enough to have his late cases recover after a delayed operation, but the results of surgery show that he is courting disaster and will sooner or later come to realize by sad experience that the risk he is running is quite unjustifiable. In reviewing one's own records one finds that the harmful effects of delay are demonstrated in a variety of ways. Abscess formation frequently occurs with long continued suppuration and persisting sinuses which after final closure leave a weak abdominal wall requiring repair for "post-operative rupture." One very common and fatal complication in delayed cases is perforation, and one may pause to enquire if it is possible to anticipate such a disastrous occurrence. The fact is, perforation occurs often in the most unexpected circumstances. A patient may have what

is apparently a mild attack and after twenty-four hours the pain has become less, the temperature little elevated and the pulse normal, then possibly a purgative has been administered and perforation occurs, throwing the victim at once into a condition in which one realizes that there is grave danger of a fatal issue no matter how promptly the abdomen is opened. Here let me emphasize with all possible force the danger of a purgative in acute appendix cases; the possibility of such measures doing grievous harm is too well known to every surgeon. The purgative may induce perforation, or what may prove equally disastrous, the rupture of a localized abscess into the general peritoneal cavity. Quite recently the writer was arranging to operate for the radical cure of femoral hernia, two days before the date fixed for operation the patient was ordered a purgative, but before taking the medicine she telephoned to me that she had severe abdominal pain. She was instructed not to take the purgative until I saw her, and on examination, and after consultation with her physician, it was determined that she was suffering from an acute attack of appendicitis. I operated in the middle of the night and removed an appendix which might well have perforated had the purgative been given. She made a good recovery and the operation for radical cure of the hernia was successfully carried out three weeks later. I considered one had made a fortunate escape in avoiding the complication of appendicitis in an operation for femoral hernia, and it was fortunate, also, that the patient had sufficient prudence to ask my advice before taking a purgative when suffering from acute abdominal pain.

Incidentally one may remark that the whole difficulty in determining the time to operate in appendicitis is largely the difficulty in diagnosis. It is impossible to determine by the physical signs as to the nature of the individual attack, for example, whether the appendix is gangrenous or not. The pulse, temperature and leucocyte count are all useful clinical guides, but neither these nor the severity of the pain, nor of reflex symptoms of vomiting, etc., are sufficiently characteristic to assist us in differentiating the simple cases from those of the most dangerous form, and until an accurate clinical diagnosis can be made our only safe course is to remove the appendix the moment a definite diagnosis of appendicitis is made. There may be some instances where the general condition of the patient, or his surroundings may necessitate delay, or may cause one to conclude that the direction of least risk lies in temporizing, but these cases are exceptionally rare.

What has been said regarding the effects of delay in acute appendicitis applies with equal force in other conditions within the

Thus, in cholecystitis, we have possibilities which are comparable to those presenting themselves in acute appendicitis, and whilst it is more rare to have a ruptured gall bladder than a ruptured appendix, yet it occurs occasionally, and it is gradually becoming recognized more and more widely by the profession that when cholecystitis presents acute symptoms operation should not be delayed. But further the persistence of chronic inflammation here should undoubtedly demand operative interference. bilities of acute empyema and perforation of the gall bladder must always be borne in mind as a complication in the course of chronic disease and many other serious conditions may manifest themselves, particularly when gall stones are present. operated on a patient who had suffered for years from gall stone colic, and finally, during an acute exacerbation, operation was undertaken; a large solitary stone surrounded by pus and mucus was ulcerating through from the gall bladder to the stomach where adhesions had formed. In another recent case the patient had suffered for ten years and for the past five years endured pain of great severity, at each attack necessitating large doses of morphia to control it. Operation revealed numerous gall stones (440 in all) with extensive adhesions of the gall bladder to neighboring viscera. I need not multiply instances, but surely here again the enormous advantage of early operative interference is clearly demonstrated. Patients, too, may suffer for prolonged periods with stone in the common duct, and when finally operation is undertaken the duct is often enormously dilated, the gall bladder and ducts the seat of septic trouble and a mass of peritoneal adhesions gluing the various viscera together in an almost inextricable tangle. Further, these patients with gall stones frequently develop a pancreatitis and run considerable risk of cancer. On an average one in thirty cases of primary cancer of the gall bladder, according to C. H. Mayo, has developed cancer as a local condition around a gall stone which has mechanically irritated some mucous area of the gall bladder tract.

Malignant disease: Turning now our attention to malignant disease, we again must voice the experience of all general surgeons in recording the many sad instances where delay is disastrous and often fatal. It is not necessary to dwell on this part of my subject, because the facts which one might illustrate over and over again from one's clinical records, are universally recognized by the profession. In this instance it is, perhaps, the laity who require to be educated as to their duty. The prevalence of cancer is observed more accurately than heretofore. The most accurate statistics are probably available in Great Britain, and Bashford, in the Third

Scientific Report of the Imperial Cancer Research Fund, shows that the chance that a man over 35 years of age will die of cancer is one in eleven, and the chance of a woman above the same age is one in eight. Bashford has further come to the conclusion that "the number of deaths assigned to cancer increases from one country to another in a manner parallel with the increasing accuracy of the vital statistics of the several countries." Whatever may be the exact figures, it is obvious on the most superficial inspection that cancer is a very prevalent disease, and apparently it is on the increase, although Bashford is inclined to think that the most recent figures do not prove an actual increase in cancer, but that the apparent increase is due to the more accurate methods of reporting cases which at present obtain.

A large amount of work is being expended on the study of cancer in the laboratory, and much has been done to clear the ground for work which we are all optimistic enough to think will eventually prove of material benefit to mankind in the eradication of this wide spread scourge. Clinical experience has, however, offered abundant opportunity for observation as to the course of the disease, and of the results obtained by the treatment of malignant disease on a great variety of lines. To-day we find surgeons practically unanimous in concluding that early and radical operation holds out the best prospect of cure. If we had to choose between the two we might urge that it is more important for the operation to be early than that it should be radical, because statistics have shown that in cancer of the breast at all events more cures are effected by early incomplete operations than by extensive late ones. It is therefore obvious that this doctrine should be taught the laity and that early relief should be insisted upon by the medical attendant in every instance. Formerly patients were sent to hospital for surgical treatment after the medical attendant had watched the growth carefully for weeks or months until he was quite sure it was malignant and demanded surgical interference. Now fortunately things have changed and patients are sent when a growth appears which may or may not be malignant. The surgeon operates and by quick section will determine beyond doubt the character of the growth and will act accordingly. Unfortunately, however, there are some in the profession who have not yet awakened to the importance of these observations, and we must continue to reiterate facts until the victims of cancer will all find relief at an early date and will no longer present themselves when the hope of relief by operation has vanished.

One lesson surgeons are slow to learn, and that is the futility

of operating in advanced cases when the possibility of eradicating the disease no longer exists. The advice of Hippocrates is still cound for advanced cases, when he says: "It is better not to apply any treatment: for if treated the patients die quickly; but if not treated they will hold out for a long time." Let me illustrate my point by citing the case of a woman, æt. 48, who developed a tumor in the breast and was treated by Christian Scientists until the tumor assumed large proportions. When first seen by the writer the entire breast was a hard cancerous mass, adherent to the chest wall, and about to ulcerate on the surface, several secondary nodules existed in the skin near by, axillary and subclavicular glands were enlarged and the woman was markedly cachectic. I considered the case inoperable and refused to interfere surgically. She, however, was taken by her friends to consult a prominent surgeon in the United States, a man for whom I have the greatest respect for the important contributions he has made to surgery. To my surprise he attempted a radical operation, but desisted after resecting a rib and finding the pleura involved. The patient died a few days afterwards in the hospital. Now I believe such operations do harm; the case undoubtedly was absolutely inoperable. If there is the least possible chance of benefiting a patient by operation nothing should dissuade us from doing so, as our patient's welfare is the only desideratum, but operation where no possibility of success exists does harm in two ways, first, the public, who are uninitiated in the clinical course of cancer, think that if surgery has failed to relieve in such a case it is therefore valueless in any case, early or late; and again it deprives one of the opportunity of teaching the laity that it is possible to seek surgical aid too late for radical relief, and I believe much good will be accomplished if we refuse to operate in hopeless cases, and if by this means we teach a lesson which may have the effect of saving other victims from such a sad fate. This point was emphasized very strongly by C. H. Mayo in his address as Chairman of the Surgical Section of the American Medical Association recently.

In order that a radical operation should be done early, the diagnosis must be made early. This is by no means an easy matter in the majority of instances. Take for example breast tumors in which we suspect malignancy by noting the age of the patient, the connection with the skin, the consistency of the tumor, the existence of palpable axillary glands, etc., yet the most astute diagnostician will fail at times to establish a correct diagnosis. Surely under these circumstances it is justifiable to remove a benign growth where the possibility of malignancy exists, rather than run the

risk of a mistaken diagnosis. This fact is emphasized when we consider the absence of risk in removing such a growth and the further stern fact that of all cases of carcinoma of the breast operated on we can only count on from 20% to 40% of cures. All surgeons are optimistic enough to believe that the percentage of cures will be increased as we educate our patients to seek relief early in the disease. It is always prudent to have a quick section made at the time of operation in doubtful tumors, and since the introduction of this routine practice much good has been accomplished. Let me further urge that all tumor tissue removed should be subjected to routine histological examination. This is done as a matter of course in every well appointed hospital clinic, but let me pause to ask why it is not done in every section of the country. Our students are taught the use of the microscope and the value of histological examination in various pathological processes with a thoroughness which never hitherto existed, and yet it is astounding to find how few of our younger graduates in country districts possess a microscope! One finds, however, that the man who continues the study of minute anatomy after he had entered practice will command the confidence of the public more than his colleague who fails to do so, and thus it is obvious that sooner or later the microscope will become, as it should become, as indispensable in the armamentarium of the practitioner as the clinical thermometer or the stethoscope, and it will be appreciated, also, that it is in the selfish interest of the practitioner to use it.

The importance of routine histological examination may be instanced in the case of one of the author's patients, a woman æt. 50, who, when first seen, gave a previous history of enlarged glands on both sides of the neck. At the time she sought advice she had a temperature of 104° with a painful edematous swelling on the right side of the neck where I opened a postpharyngeal abscess. days afterwards I found a similar abscess on the left side of the neck. Four months subsequently, because of tumefaction in front of the sterno mastoid muscle, I made an incision and cut through what was apparently dense cicatricial tissue. Subsequent microscopic examination of the tissue revealed, what we had hitherto not suspected, nests of epithelial cells embedded amongst dense fibrous tissue. A search was now made for the primary growth, which was found to exist in the larynx below the vocal cords and which subsequently infiltrated the pharyngeal wall.

Whilst thus insisting upon the necessity for microscopic study, and more particularly the great advantage of a quick section during an operation for tumor, let me utter a note of warning and urge

that in a percentage of cases, fortunately a very small percentage, the most expert histological pathologist may mislead one. was well demonstrated in the case of a woman, æt. 49, with a tumor of the breast which she had noticed three years previously. There were palpable glands in the axilla, and the mammary tumor which lay immediately beneath the nipple appeared to be attached to the skin, although no marked retraction of the nipple existed. I did the usual radical operation with removal of the breast and pectorals and of the axillary glands. The pathologist first reported the breast tumor a chronic mastitis without malignancy, but on subsequent examination of the axillary glands he found they were Subsequently a careful search over the breast carcinomatous. tumor was successful in finding undoubted carcinoma in a small focus surrounded by a large amount of chronic inflammatory tissue. Again one must not jump to the conclusion from the study of such a case that the key to the situation is to be found in the enlarged gland, because it is well known that indurated glands may be purely inflammatory in conjunction with a primary malignant growth. This is notoriously the case in malignant growth of the stomach and should always be considered when determining the limitation of operative interference.

One should bear in mind that in various manifestations of malignant disease the magnitude of the secondary growth may entirely overshadow the primary, and the latter has in many instances been entirely overlooked, as in the case cited above. I might give other instances from my note book illustrating this point. Here then it is one's duty, if a complete eradication of the disease is to be accomplished, to make a thorough search for the primary growth when we find carcinoma in the glandular tumor. If it is essential in such cases to find and remove the primary growth it is equally clear that where we are dealing with a primary cancer growth we should not wait for gross secondary manifestations in the lymphatic glands, but should proceed at once to remove the glands and gland-bearing fascia of the region likely to be involved. importance of this is evidenced all too frequently in the past as in the case of a man 64 years of age who had a carcinomatous ulcer the size of a twenty-five cent piece removed from the inner side of the cheek and then came to the hospital fifteen months subsequently with a large secondary growth in the submaxillary glands, necessitating an extensive dissection with little hope for radical cure. again the necessity for this method of procedure may be demonstrated in another way when after removal of the primary growth and of the glands and fascia, which show no gross signs of secondary

involvement, we find on microscopic section that cancer cells are already present in the glands. A single instance of this latter possibility is sufficient argument to show conclusively that the removal of the glands, whether involved or not, should form a part of our routine practice in dealing with malignant disease.

The results obtained by the modern method of performing a radical operation for cancer of the breast fully justify the routine removal of the whole breast, the pectorals and the axillary glands and fascia, but the earlier a radical operation is undertaken the more the prospect of cure is enhanced. Yet this fact is not appreciated to the extent it should be, thus quite recently I operated on a woman 77 years of age, who had had a small tumor removed from the breast six years previously, local recurrence was first noted some five years after operation with secondary axillary growths. Had a radical operation been done in this woman's case at the outset, one believes that recurrence would have been most unlikely, particularly at her age. Too often these small growths are excised and not even submitted to microscopic examination. quently see the pernicious results of such practice, and one feels it one's duty to protest as strongly as one can against it. The fact is a practitioner may have only one or two such cases in a long period of years, and he is perhaps not to be blamed if he fails to realize the gravity of such a case and the responsibility he assumes in treating it. It is the duty of the surgeon, therefore, to use every opportunity to teach the lesson of the necessity for early and radical measures in such cases.

Reference has been made in this paper to malignant disease in the neck. Crile has urged with force that cancer in the head and neck is primarily a local disease, and that "the collar of lymphatics of the neck forms an extraordinary barrier through which cancer On those grounds he has urged that the rarely penetrates." technique, if mapped out on the basis of logical argument, must be a "block" dissection of the regional lymphatic system as well as the primary focus, applying the same principles here as those which are now universally adopted in the excision of the breast with the pectorals and lymph glands for cancer. We concur most heartily with these conclusions, experience teaches us the wisdom of such a course, and the absolute folly of incomplete operation. Important nerves, blood vessels and muscles must be sacrificed if need be to secure our end, the only limitation being the danger to life or the degree of disability ensuing from our interference with important structures, the length to which we must go in the individual case being determined by consideration of the extent of

the disease and the dissection necessary to ensure its complete and permanent eradication.

There can be no doubt of the fact that the necessity for early and radical operation in the conditions cited in this paper is more fully recognized every day. This fact is evidenced in McWilliams' table quoted above, in appendicitis for example where we find that by far the largest number of operations were performed early, and comparatively few instances of late operation are recorded, but the table also shows that as many cases (145) were delayed to the second day as were operated upon on the first day, in spite of the fact that the mortality was twice as great on the second day. Comparatively few, however, were postponed until the fourth day, when the mortality was five times as high. Similarly in malignant disease opportunity for early interference and the performance of radical operations with the utilization of every means at our disposal for an accurate diagnosis are fortunately much more common than heretofore. Nevertheless, we frequently have patients brought to us for operation at an advanced stage of the disease, when it is all too certain that radical relief is impossible, hence the importance of continuing to insist upon early and radical treatment as a necessity if we are to preserve the health and life of our patients in a manner rendered possible by modern methods of treatment.

FORECASTS OF MEDICAL PRACTICE IN THE FUTURE.

By T. D. CROTHERS, M.D., HARTFORD, CONN., Superintendent, Walnut Lodge Hospital.

Articles in different medical journals of recent date having taken a rather gloomy outlook of the future so far as concerned the medical profession, led Dr. Crothers to write this paper.

Whilst physicians are constantly increasing, disease decreasing, longevity getting greater every year, and preventive medicine controlling sickness and disease, the field of the medical practitioner grows smaller.

People are taught to take better care of themselves, health books are multiplying—all to the disadvantage of the doctor. The annual income becomes less as hospitals, dispensaries and medical charities increase; hence the complaints.

Every year physicians drop regular work for financial reasons. Someone has recently estimated the annual income of physicians at less than \$900 per annum, which is certainly very discouraging after having spent from \$2,000 to \$5,000 on medical education. This remuneration is that of a clerk or a carpenter.

Then, too, standards are being raised, education longer and more expensive. A literary education, a university degree, a year's hospital training becoming to be required adds to the cost. When he goes into practice, what with bad accounts, competition with unlicensed practitioners, he can scarcely make ends meet.

And it sounds strange that as receipts from practice grow less standards are to be increased and the cost of obtaining a medical education advanced.

The incompetent rival often does better than the high-grade graduate. When quacks and irregulars are permitted to do medical work no wonder that practice occupies a very uncertain

position.

There are two classes of medical colleges, the university with its hospital and laboratory attachments, and those with limited facilities, the proprietary schools, the money-makers for their shareholders. It is not always from the former that the successful ones come. In fact it appears to be more otherwise, the graduate from the inferior school equalling if not surpassing the graduate from the properly-equipped university school.

What is wanting? The graduate of the inferior school in his own interests is forced to become active, whilst the other becomes self-satisfied and contented.

The highly-trained medical student has not the same stimulus to work that his less fortunate brother has, who continues to be a student all his life.

Is the small college to be driven out? Must an expensive course be the road to a diploma? Must the profession take legal steps to prevent the irregular and untrained man from practising? Shall we advocate the man to practise medicine above 'pathies and schools?

One fault lies in the lack of determination of capacity. There are teachers out of their spheres. There are surgeons who should not be operating. Even there are specialists out of their spheres.

A new range of practice is looming on the horizon—preventive and scientific medicine—and the physician of the future will be retained the same as a lawyer. His work will be advising and consulting; he will be paid for as such. He will make regular visits

to the homes and become acquainted with the home life of the family.

Already this has been put in practice in some of the large cities with most promising results. When this is the case, Christian Science and Emmanuel movements will cease and the patent medicine business will get its quietus. Epidemics will be speedily checked or prevented altogether. This is the ideal towards which practical medicine is leading, and for it he will receive proper compensation for his skill and judgment. It is a pure growth from lower to higher ideals, and neither legislation, examining boards, nor college regulations will bring it about. Quackery and ignorance will take care of themselves.

Destroy machine-like demonstrations, break up narrow materialistic views, make college training practical and the great question of finding the right man for the right place will be solved.

Begin revolution and evolution in the medical colleges first; and before the end of the century the medical profession will lead the triumphant march.

ASTHMA.

Weiss (Therapie der Gegenwart) states that an inhalation of an atropine spray or painting the nasal mucosa with atropine-cocaine solution frequently arrests an attack of asthma. The region behind the uvula, the tonsils and their vicinity is the seat of the spasmodic contraction. Free the respiration centre from morbid reflex stimuli and the action of toxines and there will be no further disturbance so long as the paralyzing action of the drug lasts on the region mentioned.

WOUNDS.

The treatment of wounds with alcohol according to H. T. Bahnson (Int. Jour. Surgery) exhibits two principles, namely, absolute rest of affected limb and the envelopment of the whole limb in a loose, voluminous dressing of gauze and absorbent cotton, kept constantly wet with 15 to 20 per cent. solution of alcohol in a saturated solution of boric acid, to which Ochsner adds 5 per cent. carbolic acid solution one part. Cover to prevent evaporation and retain warmth. The whole dressing should be kept wet and the dressing should be renewed in forty-eight hours. The second dressing is usually sufficient to entirely overcome the sepsis. If the case demands it Bahnson uses pure alcohol.

Surgery

Walter McKeown, Herbert A. Bruce, W. J. O. Mallocii, Wallace A. Scott, George Ewart Wilson.

Some of the More Rare Causes of the Acute Abdomen. By Mr. William Henry Battle, F.R.C.S. (Eng.). The Lancet.

Battle deals with acute hemorrhagic pancreatitis, acute dilatation of the stomach, and with some neuroses which may cause symptoms of urgency.

In acute hemorrhagic pancreatitis the symptoms are so urgent and accompanied by so much pain that operation is usually permitted. On opening the peritoneal cavity early there may be nothing abnormal revealed, and the small amount of blood-stained fluid may be overlooked, and there is no fat necrosis as yet.

Fitz wrote: "Acute pancreatitis is to be suspected when a previously healthy person or a sufferer from occasional indigestion is suddenly seized with a violent pain in the epigastrium, followed by vomiting and collapse, and in the course of 24 hours with a circumscribed epigastric swelling, tympanic or resonant, with a slight rise of temperature."

On examination, the abdomen is not rigid, but is more resistant than normal. There has been a diffused superficial tenderness, especially on unexpected light palpation. There has been patchy resonance over the abdomen without evidence of free fluid. The movements during respiration have been good. The pulse is rapid. There is a rise of temperature and an anxious countenance.

The diagnosis is to be made from perforations of the stomach, appendix and gall bladder. From acute intestinal obstruction, acute irritant poisoning, and from such rare conditions as rupture of a liver abscess, embolism of the mesenteric artery, etc.

There are reports of two cases of acute dilatation of the stomach, one of which died. In the first case the stomach had become a mere fluid-containing sac with a thin wall which covered the intestines and gave a dull note on percussion across the middle line.

There is a report of a case of hysterical vomiting of blood. There was vomiting daily, without relation to food of large quan-

tities of fluid containing a good deal of evenly diffused blood. In spite of this fact there was no anemia.

Gastric hemorrhage has sometimes a purely nervous origin. Enterospasm. By this term is meant "a condition in which there is a spastic contraction of the muscular wall of some part of the intestine. This may cause symptoms of varying intensity, from those of chronic constipation to such as simulate acute intestinal W. A. S. obstruction."

Report of Two Successful Cases of Removal of the Spleen for Splenic Anemia. By G. A. Sutherland, London, and Mr. F. F. Burghard. The Lancet.

On admission, the blood count in case number one was 2,420,000, the hemoglobin being 40%. Three days after the operation the count was 4,700,000, and the hemoglobin 76%.

Case No. 2 gave a count of 1,870,000, and hemoglobin 30% a week before the operation, and a count of 4,000,000 and a 52% of hemoglobin 4 days after the operation.

The details of the operation are described.

"If we assume a loss of vaso-motor control in the splenic artery leading to overfilling of the spleen with arterial blood, it is possible to understand all the morbid changes in the blood. Malpighian itself would be enlarged and its substance generally. corpuscles, endothelial cells, connective tissue, etc., would be in a state of active hyperplasia. This is the usual condition found after splenectomy and post-mortem, with the added changes which time has brought in prolonged cases. At the same time the functional activity of the spleen would be increased, and the function which is usually ascribed to it, that of removing red corpuscles by means of its large endothelial cells. Instead of mere scavengering work it is easy to understand that these endothelial cells, in greatly increased numbers, may attack not only effete cells, but those which are healthy, and that active hemolysis and destruction of hemoglobin follow."

THERAPEUTIC TIPS

STIFFNESS OF KNEE.

T. Miller (Muench. med. Wochen.). In cases of stiffness of knee following injuries and operations, recommends that mobilization of the knee be done under anesthesia, and fixation of knee in extreme flexion for twenty-four hours. The leg should be suspended so that it will swing freely. Then rest of the leg in bed without support, falling naturally in flexed position. No dressing is required. Massage can be carried out readily.

INTESTINAL FLATULENCE.

Boas (Berliner K. Woch.) advises exclusion of fermentable foods from patient's diet. Their tolerance of foods must ever be kept in mind. Potatoes, milk, buttermilk, eggs and rare meats are apt to produce fermentation. The best antifermentative is magnesium salicylate. It does not cause constipation. He gives from fifteen to thirty grains three times a day. Where there is constipation and catarrhal inflammation small repeated doses of castor oil are recommended.

PYELITIS IN INFANCY.

Joseph Brennamann (J. A. M. A.) advises rest in bed, diet watched, abundance of liquids, either water or alkaline waters. English writers, notably Thompson and Still, prescribe large doses of potassium citrate, one-half a drachm to a drachm three times a day. The essential treatment is to render the urine neutral. Thompson says: "The alkaline treatment must be continued for a week or two at least, in spite of the depressing effect which it has on the child's general condition and the loss of appetite it is apt to occasion." German and American clinicians advise urotropin and salol.

REMOVAL OF FOREIGN BODIES FROM OESOPHAGUS.

William Lerche (J.A.M.A.) says the first step in removal of foreign bodies from the æsophagus is to anesthetize with 10 per cent. solution of cocaine the pharynx, the pyriform sinus and the inlet of the æsophagus. The æsophagoscope, without the obturator, is introduced under the guidance of the eye, and when the foreign body comes into view its position is noted, and with special forceps it is carefully dislodged and extracted. In the case of sharp foreign bodies, the bougie or the probang should never be used. Sometimes it may be necessary to cut or break a foreign body, and for this purpose Kahler's forceps are useful.

Reviews

Phases of Evolution and Heredity. By Dr. David Berry Hart, M.D., F.R.C.P.E., Lecturer in Midwifery and Diseases of Women, School of the Royal Colleges, Edinburgh; Late Examiner to the Universities of Edinburgh, Oxford, Birmingham, Liverpool, and to the Royal College of Physicians, Edinburgh. New York: Rebman Company. Price, \$2.00.

In brief, compact form we are introduced by the author to theories of evolution and heredity, including Darwinism, Weismannism, Mendelism, Biometry and Mnemism. The author himself adds his own views to these different ideas, and is a great believer in the law of probability. These chapters are excellently suited for any reader who desires to grasp these primeval laws with ease and to have a guide to direct him in further reading.

The remainder of the book is devoted to a series of chapters on different but related subjects. While perhaps they are not very scientific, yet they are most readible, and that particularly on the Honey-Bee is charming.

The subjects of Evolution in Religious Belief and the Handicaps of Sex seem to be rather too briefly and superficially discussed, but they fall in with the whole structure of the book, namely, brevity.

G. W. H.

Anemia. By Dr. P. Ehrlich and Dr. A. Lazarus. Part I. Volume I. Normal and Pathological Histology of the Blood. 2nd Edition. By Dr. A. LAZARUS and Dr. O. NAEGELI. Translated by H. W. ARMIT, M.R.C.S., L.R.C.P. New York: Rebman Company. \$4.00.

Ehrlich has been unable to rewrite the second edition of "Anemia," but his former collaborator, Lazarus, has accomplished the task, assisted by another of Ehrlich's associates, Naegeli.

This volume is a most satisfactory one in every way, and can be highly recommended to every physician who wishes to possess an up-to-date book on hematology.

The introduction deals with the clinical methods for examining the blood, advises the most suitable apparatus for different procedures, shows the errors that occur, and eliminates the clinically valuable from the merely scientific methods.

The second chapter discusses the morphology of the blood, including the making, fixing and staining of dry films, and this work on staining alone is invaluable. The glycogen, alkali and sugar tests, as required in blood examination, are described, and the chapter completed by a complete description of the red cells of all types, with a discussion on each question that has interested all workers in hematology, such as the cause of polychromatophilia, poikilocytosis, fate of the nucleus.

The third chapter is devoted to the white blood corpuscles, normal and pathological, and contains a magnificent description of everything one should wish or require to know. Cell granules are exhaustively described, leucocytosis according to Ehrlich, and finally a section on leukemia concludes the article.

A short chapter on the blood platelets is followed by five beautiful plates.

The book needs no favorable comment, it is a necessity, and the edition should be rapidly sold out.

G. W. H.

Modern Treatment of Alcoholism and Drug Narcotism. By C. A. McBride, M.D., L.R.C.P. & S. (Edin.). New York: Rebman Company.

The earlier chapters in this book are disappointing, the article on pathology, particularly, being extracted from other authors, while that on the causes of inebriety chiefly interests us because of the frequent reference to Canada, and Toronto in particular. "During three months visiting between Montreal and Chicago, I was never offered or saw any alcoholic beverage in any house but one, where half a bottle of whiskey was kept for medicinal purposes."

"An Englishman, staying at the Queen's Hotel, ordered a small Bass daily for his luncheon, but discontinued it, as it made him conspicuous."

Dr. McBride divides alcoholics into four classes, namely, the constant drinker, the periodical, the dipsomania, the voluntary and mixed cases, and his description from his large experience of these cases is worth reading carefully.

When, however, we reach the subject of treatment, which occupies one-half the volume, one is able to read one of the clearest, most delightfully expressed, and one of the most valuable treatises on the subject of alcoholism that has ever entered print.

For the voluntary drinker there is advised moral treatment, restraint and institutional methods, but for the diseased patient of the constant and periodical class, the man with a "craving" for spirits, these popular methods are useless. Dipsomania, of course, requires most careful control.

For these patients with true alcoholic disease, the author entrusts us with his own method of cure, "a strychnine and atropin" plan of medication, requiring six weeks treatment, and resulting in cure in a vast number of cases. The same methods are applied to many of the drug habits.

No further review or commendation of this volume is necessary, but if Dr. McBride's results are as good as he claims, and there is no reason to doubt them, then this book, with a title that would not attract many readers nor appeal to many medical book collectors, is worth its weight in gold. Practical physicians with alcoholic patients are advised strongly by the reviewer to read this book.

G. W. H.

A Handbook of Practical Treatment. Edited by John H. Musser, M.D., and A. O. J. Kelly, A.M., M.D., both of the University of Pennsylvania. Published by W. B. Saunders Company. 1911. In 3 volumes.

The first volume of this voluminous work, just issued, reaches almost 1,000 quarto pages, and is indicative of the completeness aimed at by the editors. Among the subjects dealt with, in each case by a writer of note, are, Principles of Treatment, Dietetics of Adults and Infants, General Principles of Treatment by Drugs, Organo-Therapy, Serum-Therapy, The Use of Rest, Climate, Hydrotherapy, etc., and certain surgical methods.

The methods of treatment of disease have so advanced in recent years that such a work, including as it does the most modern discoveries, is most timely, and should prove a sufficient answer to that school of "Therapeutic Nihilism" which has been wont to decry therapeutics.

The scope is very comprehensive, but no space is spared each writer so that he may present his subject in sufficient detail to be of real service as a guide to others, hence the great practical value of this work to the practitioner of medicine and surgery.

It is interesting to note that out of 22 contributors, 11 are from Philadelphia. Sir Lauder Brunton alone represents England in a short article.

A Manual of Physical Diagnosis. By Brefney Rolph O'Reilly, M.D., C.M., F.T.M.C. Toronto, M.R.C.S. Eng., L.R.C.P. Lond.; Demonstrator in Clinical Medicine and in Pathology, University of Toronto; Assistant Physician to St Michael's Hospital, Toronto; Physician to Toronto Hospital for Incurables. With 6 plates and 49 other illustrations. Philadelphia: P. Blakiston's Son & Co.

Canadian medical literature being all too scant, gives interest to anything produced in this line from one of our own men. An examination of the text, arrangement of subjects, illustrations, etc., leads us to congratulate Dr. O'Reilly that he undertook to prepare a book of this character. It is brimful of practical "pointers," and will be found of splendid worth to medical students. It is concise and right up-to-date. The arrangement is all that could be desired. Designed in the interests of medical students, it cannot fail to meet with the best favor from them. Indeed, we believe that many general practitioners will find it of extreme value as a ready hand-book to rapidly make a review of their physical diagnosis, especially as it contains all the newer matter in this branch of medicine.

Bismuth Paste in Chronic Suppurations. Its Diagnostic Importance and Therapeutic Value. By EMIL G. BECK, M.D., Surgeon to the North Chicago Hospital, Chicago, Ill. With an introduction by CARL BECK, M.D., and a chapter on the application of bismuth paste in the treatment of chronic suppurations of the nasal accessory sinuses and the ear by Joseph C. Beck, M.D. Published by C. V. Mosby Company of St. Louis. Price, \$2.50.

The book contains a history of the discovery of the therapeutic value of bismuth paste and a detailed account of its use. The paste is of value in all chronic suppurations where there are sinuses or fistulae, except where there are fistulae of the gall bladder, pancreas, or where the sinus communicates with the cranium.

The chapter on bismuth paste in anatomical diagnosis and that on the diagnostic errors which have been revealed by the use of the paste are very instructive. There are chapters devoted to the use of the paste in sinuses due to spondylitis, osteomyelitis and joint diseases, post-operative abdominal and kidney sinuses, rectal and fecal fistulae, empyema and lung abscess.

An interesting chapter is devoted to the conservative treatment

of cold abscess, and another to the limitations of the use of the paste and the causes of failure in some cases.

The last two chapters are devoted to the use of bismuth paste in chronic suppurations of the nose, ear, accessory sinuses and mastoid process, and to the use of bismuth paste in dentistry.

There are 81 illustrations. The book is well written and the meaning is always clearly understood. It contains 237 pages, and there are many references.

W. A. S.

A Text-Book of Bacteriology. By Philip Hanson Hiss, M.D., Professor of Bacteriology, College of Physicians and Surgeons, Columbia University, N. Y., and Hans Zinsser, M.D., Associate Professor of Bacteriology, Leland Stanford Jr. University. Illustrated. 745 pages. 1910. \$3.75. New York: D. Appleton & Co.

In this text-book the authors present a treatise on general bacteriological technique and medical bacteriology. The authors are so well known to the students of this subject, through their many contributions to it, that the book should be widely read.

In section one bacteriological technique is well presented and illustrated. Section two is devoted entirely to infection and immunity. In it they discuss the many phases of these subjects in such a way that the fundamental principles should be easily grasped by the student. The most recent investigations are incorporated in this discussion. The chapters devoted to the study of the pathogenic bacteria are well written and concise. The arrangement of the subjects treated is especially good.

This text-book of bacteriology for the student and the practitioner of medicine, easily ranks with the best that have appeared up to this time.

O. R. M.

Differential Diagnosis. Presented Through An Analysis of 383
Cases. By Richard C. Cabot, M.D., Assistant Professor of
Clinical Medicine, Harvard Medical School. Octavo of 753
pages, illustrated. Philadelphia and London: W. B. Saunders
Company. 1911. Cloth, \$5.50 net. Canadian agents: The J.
F. Hartz Co., Ltd., Toronto.

The plan followed in the arrangement of this book follows out the course of procedure often adopted in examinations of patients, either in the office, at the bedside or in the hospital elinic. First, there are some general considerations. Then follow reports of cases, the symptoms being carefully set out and thus leading up to the diagnosis. In the table of contents one sees that the author has selected sixteen symptoms often complained of by patients, and within these limits the diagnoses are established.

But the object of the book is not merely to gather together all the symptoms in a given case, but rather from the point of view of practice to collate these to so arrive at the underlying disease, and not merely to treat symptoms. The discussions which are connected with each printed case are concerned with differential diagnosis, and in this will be found the chief value of the book. The profession will find it very interestingly arranged, aptly illustrated and exceedingly instructive.

Collected Papers. By the Staff of St. Mary's Hospital, Mayo Clinic, Rochester, Minnesota, 1905-1909. Octavo of 668 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1911. Cloth, \$5.50 net. Canadian agents: The J. F. Hartz Co., Ltd., Toronto.

This is a considerable volume of 668 pages. Of these, the first 294 pages deal with various conditions and operations on the alimentary canal. There are five papers on hernias, seven on genito-urinary organs, eleven on the ductless glands, four on head and extremities, one on anesthetics, three on technic, five general papers. Many of these papers have been read before some of the most prominent medical societies, and have appeared from time to time in various medical journals.

The medical profession will appreciate this collection of papers from the world famous clinic of Rochester, Minn., and that the original intention to confine the volume to private circulation was abandoned and the book placed upon the market so that any and all could have the opportunity to possess it.

Catechism Series-Gynecology. Edinburgh: E. and S. Livingstone.

This is another of those tutorial note-books, of which short but commendatory notices have appeared in our pages. They are gotten up specially for students for ready and rapid review of the salient features just prior to examination.

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And Ontario Medical Journal

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COMMENT FROM MONTH TO MONTH.

The report of the Royal Commission on Tuberculosis for the Province of Quebec has been laid before the Legislature of that Province. It is signed by such well-known medical men as J. George Adami, T. G. Roddick, E. P. Lachapelle, J. J. Guerin, Jos. E. Dubé, Michael J. Ahern and others.

The following are the recommendations:

1. More rigorous application of laws contained in the statutes regarding tuberculosis.

2. Elementary instruction in hygiene in the primary schools, normal schools and other houses of education.

3. Popular instruction under the direction of the Board of Health.

4. Medical inspection of schools, shops and factories.

5. The establishment and maintenance of anti-tuberculosis dispensaries in the principal centres of the Province.

6. Isolation of advanced cases among the poor.

7. Establishment of open-air schools for weak children who are prone to tuberculosis.

8. Treatment of curable cases by the "class" method, as it has been demonstrated that this is a method of treatment almost equal in results to sanatoriums and much more economical, giving to the patients, besides, the opportunity of living with their family. This

kind of treatment is acceptable to the poor people, and the sanatorium method to people of a richer class.

9. Legislation to prohibit the premature employment of children.

- 10. Investigation and legislation regarding the hours of labor of adults in factories.
 - 11. Legislation against alcoholism.
 - 12. Meat inspection and the control and sale of milk.

These are the measures for immediate action.

For gradual execution the following are recommended:

- 1. The establishment of preventoriums.
- 2. The erection of sanatoriums.
- 3. Agricultural and vacation schools.
- 4. Improved condition of dwelling houses, and legislation to insist upon the construction of sanitary dwellings at reasonable rents for the working classes.
- 5. Legislation for improved hygienic conditions in the cities and districts of the Province.

The Commission further submitted for the attention of the Legislature: That the Provincial Board of Health shall be the central authority for the direction and application of measures in the fight against tuberculosis, and for this end a money appropriation should be voted sufficient to create a special tuberculosis department with the necessary working staff. This department should be directed by a competent medical man, who will carry out all the educational means mentioned in the report, inspect the anti-tuberculosis institutions, and try to organize others to complete the anti-tuberculosis armament; compile statistics, and present an annual report on his administration and the results of the anti-tuberculosis campaign.

That in each municipality or association of municipalities where there is an anti-tuberculosis association or society, established by charter, the Government on the favorable report of the Provincial Board of Health, shall contribute a certain fixed sum to the cost and upkeep of any dispensary, and give power to the municipalities served by this dispensary to contribute equally to its construction and upkeep.

That the Government take the necessary measures to assure the medical inspection of schools, the inspectors reporting not only to their municipalities, but also to the Provincial Board of Health, on the health of the scholars, the cubic space accorded to each, the ventilation and sanitary state of schools; and, moreover, that the Provincial Board of Health be provided with power to inspect all

the schools of the Province, and to impose such changes as it deems necessary to render the schools healthy.

That the Government name duly qualified inspectors to report on the sanitary state of all industrial establishments where collective work is done, such as industry, commerce, administration, and that the existing legislation, to be augmented, if necessary, be applied to assure the cleanliness of the establishments where work is done collectively.

The temperance people state the Province of Quebec is ahead of Ontario in the matter of temperance reforms. This shows they are ahead also in the matter of fighting tuberculosis and are setting a fine example for all other Provinces in the Dominion to pattern after and emulate.

The Report on Medical Education in Canada and the United States prepared and distributed by the Carnegie Foundation, met with a great deal of adverse criticism from many quarters. Mr. Pritchett, the president of the Foundation, in the J. A. M. A., Feb. 25th, 1911, tells us that it has been criticized one way and another by nearly all medical journals, institutions and associations. As the report compared regular schools with irregular, quack institutions, and schools which are not medical schools at all, stating that one in Canada was even as bad as anything in the United States, Dr. Pritchett's words in connection with osteopathic schools may even at this date prove interesting enough to here set them out in full:

"It is interesting to see with what success some medical sects, for example, the osteopaths, have learned from the history of medical education to ignore the claims of the public in their own interest. A brief and meagre education is justified on the ground that the 'science' is not as yet so comprehensive as 'regular medicine' in its scope: but the osteopath, once graduated, is very vague as to just what he should or should not attempt to relieve by osteopathic methods; in consequence he will at least try to cure everything! The dean of an osteopathic school in California admitted that his students are taught to treat even such affections as gonorrhea and In a number of States the syphilis by 'osteopathic' methods. osteopaths are thus conducting schools which, while nominally osteopathic establishments, are really, by the aid of feeble departments of anatomy, pathology and physiology, turned into the weakest of ordinary medical schools. On the plea that they are training a physician of limited range, they get from the State a concession

enabling them to give the degree of D. O. in three years, instead of four; the graduates, though so poorly trained that under any other name they would not be admitted to practise at all, at once spread themselves over the entire field of illness, disease and accident. But in carrying out this programme the osteopaths have done nothing other than imitate the example of the weak medical school which goes on furnishing to those who attend it a form of education enormously behind the requirements of our day and time, while giving to the public the impression that it is offering facilities of an adequate and satisfactory sort." (In every case the italics are ours.—Ed.)

Surely the Carnegie Foundation, or at least its president, has erred again. Surely medical schools which are teaching all the branches of a medical education, scientific and practical, and sending forth capable and competent men, even the weakest medical school in the Carnegie Foundation list of the ordinary class—surely it cannot be put in the same category with any so-called medical institution—save the mark—which only has feeble departments of anatomy, pathology and physiology. It is nothing but insulting, after this enlightenment (?) on osteopathic teaching, to state that one of our medical schools was as bad as anything in the United States. And we doubt very much if there is even one ordinary medical school in the latter country which maintains only feeble departments of anatomy, pathology and physiology.

Fads, however, will arise and pass away. Osteopaths may for a time flourish like a green bay "horse." The latest to appear in our midst is the chiropractic—a system of so-called treatment of disease by manipulations of the spinal column, a sort of higher-caste osteopathy. The elite dearly love fads. Schools of chiropractics must be treated of in the next issue of "Medical Education in the United States and Canada."

Hews Items

Dr. J. B. Freeman, Bridgetown, N.S., died February 27th, 1911.

Dr. R. P. Nicholls, St. John, N.B., died in Bermuda March 6th, 1911.

Dr. Edmund Robillard, Montreal, died January 13th, 1911. He was in his 86th year.

Dr. Elizabeth M. Henderson, Hamilton, Ont., died suddenly in that city on the 26th of March.

Dr. Gideon Barnaby died in Dighy, N.S., the 10th of January, 1911. He graduated from Harvard in 1871.

Dr. R. P. McKenzie, Rossland B.C., died January 16th, 1911. He was born in 1875 and graduated from McGill University in 1904.

Dr. J. H. Armitage, Waterloo, Ont., died the 18th of January, 1911. Deceased was born in 1860 and was graduated from McGill University in 1886.

QUARANTINE in New Brunswick towns is checking the spread of smallpox in that province. The disease has existed in nearly all the lumber camps of the Miramichi district.

Dr. Wm. I. Bradley, Ottawa, died in the Royal Victoria Hospital, Montreal, March 23rd. He was a graduate in Arts of the University of Toronto 1884, and in Medicine of McGill in 1888.

Owing to the difficulty in getting municipalities in Quebec to report cases of smallpox, the Quebec Board of Health will give no information of new cases to the public. The disease is epidemic on the north shore of the St. Lawrence below the Saguenay, and there are some cases in the vicinity of Montreal.

DR. CHARLES M. STEWART, Toronto, was instantly killed by being thrown from his horse in front of a Metropolitan car on Yonge St., Saturday the 25th of March. The late Dr. Stewart was a graduate of Trinity Medical College of the class of 1897, and also M.R.C.S. and L.R.C.P., London. He had practiced in Toronto three or four years, confining his work to nose, throat and ear diseases. He was 38 years of age.

Dr. Geo. H. Field, Cobourg, Ont., is visiting in the West Indies.

Dr. John Caven, Toronto, has been spending the winter in Florida.

Dr. George R. McDonagh, Toronto, will arrive home early in April from Barbadoes.

THE Shipmaster's Association in Vancouver, B.C., are agitating for a seaman's hospital.

Dr. R. Tait McKenzie, Philadelphia, was the guest of honor at the annual medical dinner of McGill.

Dr. J. M. P. Chalmers, Vancouver, B.C., has returned from a four months' trip in eastern Canada and United States.

THE citizens of Portage la Prairie, Man., will erect a drinking fountain as a memorial to the late Dr. Frank B. Lundy of that eity.

THE number of patients treated in the Vancouver General Hospital in 1910 was 4,184, as against 3,042 in 1909. The percentage of deaths was 5.87.

At the annual dinner of the Societe Medicale de Montreal, Sir Lomer Gouin, the Premier of Quebec, announced that Quebec would be divided into ten sanitary districts, under the control of the Provincial Board of Health.

THE late Mr. Charles Byrd, Montreal, left \$10,000 to the Montreal General Hospital, \$5,000 to the Protestant Hospital for the Insane at Verdun, \$2,500 to the Western Hospital and \$2,000 to the Alexandra Hospital.

ALEXANDER Hospital, Montreal, treated 820 patients during 1910, 165 over the previous year. The deaths numbered 47, the lowest in the history of the institution. There were 233 cases of scarlet fever, 227 diphtheria and 210 measles.

According to the amendment to the Canada Medical Act now before the Canadian Parliament, British Columbia, Saskatchewan and Alberta, having no universities teaching medicine, two of the three members of the Council the Government is to name will be taken from these provinces.

THE British Columbia Pharmaceutical Association has taken the initial step of any similar society in America to stop the sale of morphine, cocaine, liquor and medicines containing the same, without the order of a physician.

Dr. Wilfred T. Grenfell, of Labrador, has arrived in New York on his annual lecturing tour in Canada and the United States.

Ontario Medical Association.—Remember the dates and place of the annual meeting this year, Niagara Falls, Ontario, May 30th to June 1st. Do more than remember! Go.

RECIPROCITY.—One of our United States exchanges urges a rather queer argument for reciprocity: "It means cheap pulp, cheap paper, cheap books, cheap journals, and, then, we preserve our own forests."

REPORT FROM THE CANAL ZONE.—The report of Dr. W. C. Gorgas, Chief Sanitary Officer of health conditions in the Canal Zone during the year 1910 has been issued. Summarized it shows that the improvement in general conditions apparent most markedly in 1909 has continued, although the total death rate was slightly increased because of an increase in the number of deaths from violence. A comparison of the deaths and death rates during the last seven years shows the following:

	Number of		
	employes.	Deaths.	Rate.
1904	6,213	82	13.26
$1905 \dots \dots \dots$	16,512	427	25.86
1906	26,547	1,105	41.73
1907	39,238	1,131	28.74
1908	43,891	571	13.01
1909	47,167	502	10.64
1910	50,802	558	10.98

The death rate from disease alone was lower in 1910 than in 1909. Among white employes from the United States the death rate from disease was 2.63 per thousand, and among all Americans, including women and children, 3.64 per thousand, which is a decided improvement over 1909. Deaths from special diseases among all employes are classified as follows:

	Number o	of Deaths.
	1909.	1910.
Typhoid Fever	13	13
Dysentery		21
Pneumonia	70	73
Malaria	$\dots 52$	50

The death rate of the total population, including the cities of Panama and Colon and the Canal Zone, was 21.18, an increase over the previous year, when the rate was 18.19 per thousand. One death from yellow fever occurred during the year, the patient having arrived in Panama from Cartagena only two days before he was taken ill. With this exception no cases of yellow fever, plague, or smallpox occurred on the Isthmus during the entire year.—Med. Rec.

The New York Polyclinic Medical School and Hospital gave a dinner at the Waldorf on March 11, at which plans for the new buildings now in course of construction were discussed. Dr. Robert C. Myles spoke of the new enterprise. Among the other speakers were Dr. John A. Wyeth, Dr. J. Riddle Goffe and Dr. Francis J. Quinlan.

MEDICAL INSPECTION IN VANCOUVER SCHOOLS.—The physical peculiarities and history in sickness and health of the whole of the eleven thousand children who attend the city schools is now known to the medical officer of the board.

During the present smallpox alarm for instance, he is aware what children have had the dread disease before and as those who have been previously afflicted are especially liable, the authorities can afford them greater protection. He knows what children are deficient in eyesight or in any other essential respect. The present weight and height of every pupil is known, and next year it will be possible to discover what physical progress the little men and women have made during the twelve months with the same degree of accuracy that the examinations make it possible for teachers to discern their mental growth.

An ingenious system of cards has rendered all this feasible.

Dr. Brydone-Jack this January introduced two kinds of cards. On one the parents record if the child has had any of the leading diseases or if there is any hereditary sickness, such as tuberculosis in the family. On the other is inscribed the result of the very thorough physical examination that the child undergoes on starting the term.

If it is found that the young scholar is suffering from some affection that treatment will arrest, Miss Breeze, the nurse, is dispatched to the home to persuade the parents to take the necessary steps to save more serious results.

Weigh scales have been ordered for all the schools, and the moment they arrive they will be installed. This will enable the principals to keep a very close tab on the development of their young proteges. In Great Britain and in some parts of the United States the physical side of the education of the children is now

very closely watched, as it is recognized that much can be done to improve the efficiency of the race. The system which has been in progress in Vancouver for a little over a month, is the result of Dr. Brydone-Jack's study of procedures in vogue in all the principal cities of the world.

The physical examination saves the young man who has a weak heart from indulging in athletic sports which will inevitably lead

to a sudden tragic end if he is not warned in time.

The young scholar with weak eyes—and fifteen per cent. of the children in the local schools have trouble of some sort with their organs of sight—are warned in time and often saved from total blindness. It also places on record the children who are not vaccinated, which at a time like this is information of the utmost importance. Over fifty per cent. of the children of the city are at present unvaccinated. Medical inspection was introduced into the schools of Boston sixteen years ago, and in Great Britain in 1907. The methods now under the control of the state in the United Kingdom are regarded by medical authorities as equal to anything in the world, and it is largely upon this system that the Vancouver school scheme has been modelled.

Beginning with the partial services of a medical man in 1907, the system has developed into the present comprehensive scheme, which enables the captains of health, who in this case are Dr. Brydone-Jack and his able assistant, Miss Breeze, to fight disease in

a way that has never been attempted in this province before.

Dr. Fagan, the Secretary of the Provincial Board of Health, last year made a tour of many of the principal cities of the United States and the east, and as the result of what he saw the physical examination of pupils was made compulsory all over the province. The system in vogue in Vancouver is the same as that prevailing in the province, except that the city cards enable more details to be given.

THE Medical Faculty of McGill begs to announce that an extended course of study for Graduate Students will be given during the coming summer. Beginning on Monday, June 12th, the course will be continued for a period of six weeks, during the first half of which the work will be conducted in the Montreal General and during the second half in the Royal Victoria Hospital.

In the Montreal General Hospital the following courses have

been arranged for the first three weeks:

Medicine.—Ward rounds, twice weekly, by Dr. C. A. Peters Two classes weekly in the Methods of Physical Diagnosis; this will include demonstrations in treatment, by Dr A. H. Gordon. One

demonstration weekly in Clinical Laboratory Methods, by Dr. A. G. Nicholls. One Out-Patient Clinic weekly, by Dr. ——.

Surgery.—One Operative Clinic and one Ward Clinic weekly, by Dr. J. M. Elder. One Operative and one Ward Clinic weekly, by Dr. K. Cameron. Two Out-Patient Clinics weekly, by Dr. E. M. von Eberts.

Operative Surgery.—Dr. von Eberts will also devote one period weekly to practical instruction in Operative Surgery, with special reference to the technique of abdominal operations.

Obstetrics.—Two demonstrations weekly in Clinical Obstetrics in the wards of the Montreal Maternity Hospital, by Dr. H. M. Little.

Gynecology.—One Operative Clinic weekly, by Dr. F. A. L. Lockhart. One Out-Patient Clinic weekly, by Dr. H. M. Little.

Ophthalmology.—One Out-Patient Clinic weekly, by Dr. Geo. Mathewson. One Out-Patient Clinic weekly, including bacteriology of the eye, by Dr. Hanford McKee.

Laryngology.—One Out-Patient Clinic weekly, by Dr. H. D. Hamilton.

Orthopedics.—One Out-Patient Clinic weekly, by Dr. MacKenzie Forbes.

Diseases of Children.—One Out-Patient Clinic weekly, by Dr. G. G. Campbell.

Neurology.—One Out-Patient Clinic weekly, by Dr. D. A. Shirres.

Dermatology.—One Out-Patient Clinic weekly, by Dr. F. J. Shepherd and Dr. G. G. Campbell.

Genito-Urinary Diseases.—One Out-Patient Clinic weekly, by Dr. R. P. Campbell. Dr. Campbell will also give one demonstration weekly on the use of the Cystoscope.

Morbid Anatomy.—Two demonstrations weekly, on Post-Mortem Work, by Dr. L. J. Rhea. In conjunction with one of the clinicians Dr. Rhea will lay special emphasis upon the comparison of the clinical with the post-mortem findings.

For the second period of three weeks the following courses have been arranged at the Royal Victoria Hospital, each of these courses extending throughout the entire period.

Medicine.—Ward rounds twice weekly, by Dr. John McCrae. Dr. McCrae will also give one demonstration in the Alexandra Hospital for Infectious Diseases. Two classes weekly in Methods of Physical Diagnosis, by Dr. H. B. Cushing. One demonstration weekly on Clinical Laboratory Methods, by Dr. J. C. Meakins. One demonstration weekly on bedside treatment, by Dr. J. C. Meakins.

Surgery.—An Operative Clinic twice weekly, by Dr. James Bell. Ward rounds twice weekly and one Out-Patient Clinic weekly, by Dr. E. W. Archibald. Ward rounds twice weekly and one Out-Patient Clinic weekly, by Dr. C. B. Keenan.

Operations on the Cadaver.—A course of practical instruction in Operations on the Cadaver, six periods, by Dr. A. E. Garrow.

Obstetrics.—A course of two demonstrations weekly in Clinical Obstetrics, in the Montreal Maternity Hospital during the first and third weeks, by Dr. H. M. Little.

Gynecology.—One Theatre Clinic weekly throughout the entire period, by Dr. Wm. Gardner. One Clinic weekly on Minor Gynecological Operations, by Dr. W. W. Chipman. One Out-Patient Clinic weekly, including demonstrations in the use of the Cystoscope in the Female, by Dr. J. R. Goodall.

Oto-Laryngology.—Two practical demonstrations weekly for two weeks, in Intubation, Simple Mastoid Operations, Bronchoscopy and Oesophagoscopy, by Dr. H. S. Birkett. One Clinic weekly on Treatment of Diseases of the Nose, Ear and Throat, with practical instruction in the use of the Laryngoscope, Rhinoscope and Auriscope, by Dr. W. H. Jamieson.

Ophthalmology.—One Clinic weekly on External Diseases of the Eye, by Dr. W. G. M. Byers. One demonstration weekly on the Routine Examination of the Eye, by Dr. F. T. Tooke.

Diseases of Children.—One Clinic weekly, by Dr. F. M. Fry.

Orthopedies.—One Clinic weekly, by Dr. W. G. Turner, assisted by Drs. Patterson and Scrimger.

Neurology.—One Clinic weekly, by Dr. C. K. Russel.

Dermatology.—One Out-Patient Clinic weekly, by Dr. P. Burnett.

Genito-Urinary Diseases.—One Out-Patient Clinic weekly, by Dr. Wm. Hutchinson. Dr. Hutchinson will give one demonstration weekly on the use of the Cystoscope.

Morbid Anatomy.—Two demonstrations weekly on Post-Mortem Work, by Dr. Gruner.

The post graduate course is open to graduates of medical schools in good standing.

Intending candidates must first register with the Registrar of the Medical Faculty.

The fee for the course, including registration, is \$50, payable in advance at the office of the Bursar of the University.

Receipts for fees paid must in all cases be shown to the Superintendent on the occasion of the first demonstration in either hospital.

Further information concerning the Course will be furnished by J. W. Scane, M.D., Registrar Medical Faculty, McGill University.

Correspondence

TORONTO, March 1st, 1911.

Gentlemen,—A Public Health Exhibit, under the auspices of the Provincial Board of Health of Ontario, will be a feature of the Canadian National Exhibition, to be held in the city of Toronto for two weeks beginning Saturday, August 26th of this year. This exhibit will consist of public health equipment of every kind, and will include also a varied assortment of apparatus, etc., relating to prevention of disease.

In addition, a lecture room is being provided, where lectures, demonstrations, etc., will be given daily. Interest in these lectures will be greatly enhanced by the use of an excellent reflectoscope and several hundred lantern slides.

Firms wishing to contribute to the exhibit are reminded that shipment should be made so that exhibits will reach here not later than August 20. Packages should be marked with the name of the firm and nature of the manufactures, and bear the following address: Dr. John W. S. McCullough, Educational Building, Canadian National Exhibition, Toronto, Canada.

When articles to be exhibited are not of home manufacture, it will be necessary for the exhibitor to ship such articles in bond. At the close of the Exhibition, if not exported, the goods may be sold and the duty then paid.

There will be no charge for space, etc. Intending exhibitors desiring further information will please communicate with

JOHN W. S. McCullough, M.D., Chief Health Officer of Ontario, Toronto, Canada.