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## Original Articles

### THE CRIME OF THE CENTURY.

By A. C. E.

About four a.m. on a Monday, Beverley Wentworth, M.D., awakened from a troubled sleep.

He placed his right hand over his heart to quiet its aching—its tumultuous beating.

Worry seized hold of him—another attack of the blues.

To-day the landlord would call for his rent; to-day the furniture man for his monthly payment; the grocer, the baker, the milk dealer, the coal collector, the butcher, probably the tailor, probably others with minor accounts.

He had had a respite—a feeling of relief when Saturday noon came; no chance of duns for a whole day and a half.

Restless, anxious, now turning to the prone, in a minute to the right, then supine, now to the left, this way and that way he rolled, soon awakening his wife.

“What is the matter, dear? You’re so restless.”

“Debts! Debts! Debts!”

“Never mind, dear; we’ll get them paid somehow.”

“Yes,” he groaned, “if I could only think so; if people would only pay me what they owe me. If the Government would only abolish the charge system of doing business and everybody had to pay spot cash for everything obtained, for all goods purchased. I don’t want to be rich; I only want to be out of debt. It is awful to be always hovering on the brink of bankruptcy; going to bed worrying of debts; awakening worrying of debts. If there was any let up to it—a month, three months, a year; but it is always the same—the same for ten years. People don’t consider us doctors.

They think we're all making money. They think it doesn't make any difference when we are paid, how we are paid, or whether we are paid at all. They never take into account that our rent has to be paid—I owe ten months' rent now—\$280."

"I know it is awful, dear, but maybe some money will come in with the morning mail. Do try to go to sleep again. If the worst comes to the worst, we have the two little kiddies,"—and soothingly, coaxingly, his wife lulled him into another slumber.

Partaking of a very light breakfast of toast and coffee, Dr. Wentworth was in his surgery that morning at nine o'clock as usual.

He took up the morning paper and began reading the news of the day. He awaited calls.

It was not long before his doorbell rang; the maid soon ushered in—the landlord, as he expected.

"Very sorry, Mr. Brown, but can't do anything to-day—probably next Monday. I am promised a good cheque for the last of the week, and I think I can safely promise you half of the arrears."

"Promises don't pay rent, doctor, and you know there is a good amount overdue," deprecated the landlord mildly.

"Yes, I know both too well, but I have to do the best I can: people consider I can live on promises—wind pudding with imagination sauce—a case of 'live, old horse, and you'll get grass.'"

Mr. Brown was a very easy landlord, with a plentiful supply of the "milk of human kindness," which was lucky for Dr. Wentworth; so he took his departure, promising to call the following Monday morning.

The door from the dining-room into the surgery opened and his wife stuck her head in:

"Who was that?" rather anxiously.

"That was the landlord. Got him staved off for another week, until—well, until I get a cheque from—somebody. Run, Margery! here is someone else," as another ring rang through the house.

"Good morning!" and Dr. Wentworth arose to meet an expected patient.

"Morning!" growled, grunted and scowled a sturdy coal heaver.

Dr. Wentworth immediately recognized a man whose wife he had been called to attend one night about eighteen months before, for a trifling complaint, one of those common disorders of digestion not worth bothering a doctor about in the daytime, but at night producing such a profound psychological impression that the doctor must come at once. Becoming tired of rendering a monthly account for \$2, he had sent it to a collector.

"How dare you send a collector after me—and for \$2, too. I can get any doctor in the city to go out at night for a dollar any time—glad to do it. All you doctors think about, anyway, is your money. Give me a receipt and I'll give it you, and I won't have you any more, not even if the cat was sick."

"Pay me the money, and I'll give you your receipt," calmly replied the doctor, though inwardly boiling to kick the dastard out. "No one ever gives a receipt until he gets the money."

The transaction was completed.

"Haven't you had a job all this time?" queried Dr. Wentworth.

"What's that to you?" with a snap.

"Nothing. Only I thought if you could just save two dollars in eighteen months I would give it back to you," and standing up before that begrimed, fat toad, Beverley Wentworth looked him squarely in the eye. "Now," he continued, "if you don't want me to kick you out you had better get out," and the delinquent debtor, looking at his tall, muscular frame, slunk away.

Again the door opened from the dining-room and his wife, Margery, poked in her head.

"Who was that?" There was a merry twinkle in her eye. She had overheard the conversation.

"That was a—patient. Here's the two-spot."

Ring, ring, ring, ring!

"Run! Pray for more this time!"

But the sailing was not so smooth as when the landlord called.

"Good morning!" The doctor thought this might be another patient, so he was standing ready to greet him.

"Look here, Dr. Wentworth! I must have this bill settled. It's been running too long altogether—and you haven't been buying any meat from me now for over three months. Here it is—\$28.75! Pay up, or I'll have the law on you! My name is Hurry, the butcher!"

Dr. Wentworth reached and took the bill from the excited purveyor and ran his eye over the items: wing roast, sirloin steak, pork chops, lamb chops, round, porterhouse, sausages, brisket, shoulder steak, kidneys, liver, bacon, eggs, sweetbreads, with repetitions. He was adding the items—thinking, deeply thinking.

"All I can let you have to-day, Mr. Hurry, is the seventy-five."

"What?" The hands clenched, the fat face got redder, the small eyes gleamed, the hair bristled. "What? Do you mean to insult me?"

A weary expression gathered and settled on the Aesculapian's countenance.

"No, Mr. Hurry, that's the honest truth. All the money in the house is \$2. We have been vegetarians for the past three months, and we will have to get some bread and milk for the kiddies and some potatoes and a cabbage or two to see us through two or three days; but I'm expecting a cheque for sure this week, and I promise you that you will be paid as soon as I get it."

The honest butcher looked at him steadily for a moment.

"Is that really, honest, all the money you have? And haven't you had any meat for three months?"

"Yes, that's honest all right—not a speck."

"Here," turning over the bill, "write out an order for what you want to-day on the back of this account; telephone when you want more, and just pay me what you can and when you can."

"Mr. Hurry, that's very kind of you, and I thank you very much. Collections have been very poor all winter; but I'll pay you sure, just as soon as I can."

"All right, doctor, all right; good luck! good-bye!" and the good-natured butcher hurried away.

"There, dear, that looks better," and his wife came into the surgery and gave him a kiss. "Now you can have a nice wing roast again with brown potatoes, and a beefsteak and kidney pie."

Ring-a-ling, ling, ding, ding!

"That's the telephone this time. I'll answer it for you. It may bring you luck."

She came and whispered: "A lady to speak to Dr. Wentworth."

"Hello!"

"\_\_\_\_\_"

"Yes."

"\_\_\_\_\_"

"I'll be in until 10.30."

"\_\_\_\_\_"

"Very well; thank you," and Dr. Wentworth hung up the ear-piece and came back to his surgery.

"Who was that, Beverley?" rather anxiously from his wife.

"Haven't the remotest idea—a stranger from out-of-town, likely. She said I didn't know her and that she was at the Royal Alfred."

"Be very circumspect then, dear; you never know. Do you wish me to remain in the dining-room?"

"Yes. And you had better take the key and lock the door on that side. It is best to take precautions. As you say, one never knows."

As Dr. Wentworth's residence was in the down-town district, it

was not long before there was another ring at the door and the maid presented—the most beautiful young woman he had ever beheld.

Bowing slightly, he immediately closed the surgery door, opening into the hall, and with a wave of his hand indicated that his fair patient should be seated.

She glided rather than sank into a chair at the end of his desk with her back to the dining-room door, her face paling, her hands instantly covering it, sobbing, her whole frame quivering, loosening the sluices of a long pent up, nervous flood.

Dr. Wentworth went to his chair in front of the desk, intensive, self-confident, self-reliant. He recognized the symptoms. The diagnosis was easy. He was exceedingly glad he had asked his wife to remain in the next room, where she could readily hear all, but see nothing.

Little by little, the nervous agitation subsided, the sobs ceasing, the tears drying, the eyes clearing, the color returning; and then Dr. Wentworth could see how wonderfully nature had endowed this woman with great beauty, exquisite grace and charm, elegance, loveliness.

He saw she was luxuriantly appareled—long Persian lamb coat, Alaska sable stole and muff; large, handsome hat with one great, drooping, white ostrich plume; black velvet, close-fitting skirt and the daintiest patent leather boots just peeping out beneath. Her very portmanteau was expensive—all suggestive of wealth and refinement.

The practised eye of the physiognomist took in the angular arch of the delicately traced eyebrow, the anxious, worried expression, that look when once seen which denotes the inward harrying of conscience and of heart.

“You wish to consult me?” asked Dr. Wentworth, sympathetically questioning.

“Yes.” And she, with downcast eyes, a hesitating and subdued enunciation, told her tale.

He heard her to the end and quietly replied: “I’m very, very sorry, but I can do nothing. Your case is beyond me.”

“How? I do not understand.” She leaned forward on the desk, and, clasping her two shapely hands, from which the gloves had been removed, displaying long, taper, bejeweled fingers, summoned all the power of her enrapturing hazel eyes, from which the high light dazzled like brilliants, pleading, imploring, that he would have compassion and yield and comply with her entreaties.

But, though her beauty dazzled him, mystified him, he only replied: “I cannot.”

"But, doctor, only think what it means to me. I am an only daughter. It will kill my poor father; he occupies such a proud and distinguished position in society. Thank God, I never knew my sainted mother. She died when I was only two years of age. Is my whole life to be ruined for such a triviality, I ask of you? Am I to be an outcast from my friends—from that society I love so well? Are the gray hairs of my noble father to be bowed in shame? Is the even of his life to be embittered as was the morn? Is the scoff of society to be leveled at him? Is the finger of scorn to be pointed at him? Is he to suffer all this for my one sin?"

"I am afraid so, so far as I am concerned. But wait, perhaps I can aid you. Nature is unerring in her course. In due time I can be a good physician to you."

"No—not that—never!" she exclaimed.

"Then our consultation is at an end," and he quietly arose as a signal for her withdrawal.

"Oh, but doctor! You are a young man, unmarried perhaps, perhaps with sisters of your own. Surely you will take pity upon me. Surely"—she began opening her portmanteau—"surely money—I am wealthy—surely this would be some inducement,"—holding out a packet of bank notes—"surely for a thousand dollars—there are ten one hundred dollar notes in this packet—surely for that you will save me."

He was moved, deeply moved. The hideous spectre of debts came before him. He thought of the rent overdue and unpaid; of the bills he had to meet—all could be more than satisfied with this amount. The temptation came upon him; it would be so easy—a matter of strict asepsis.

A slight noise in the dining-room like the clinking of glasses on the buffet, called him back to the path of rectitude. His wife had saved him.

Rising up before her, his face paling, his brow contracting, his lips tightening, his eyes fixing steadily upon her, strong, earnest, sincere, determined—she saw all rapidly—

"For a thousand dollars, doctor!" she pleaded, thrusting the packet towards him.

"Listen!" he said. "Listen! I am a married man. I have a loving, a lovely and a well-beloved wife. God has blessed our union with two, to me, beautiful children. Money I need, but not this kind of money. Do you realize what you ask of me? Do you, who may have already sinned, correctly understand? To your self-confessed sin, you now wish to add a crime. Thus you are an accomplice before the fact. All my honor, all my manhood and all my

knowledge of the Commandment, 'Thou shalt not kill,' as well as my knowledge of the law of the land and the consequences which might ensue, would hold me from ever committing this crime. Why do you, a perfect stranger to me, wish me such ill will as a guilty conscience? Do you not know that upon my head would descend the righteous hand of the law in case of accident to yourself, whilst you, if you survived, would be privileged to give evidence against me in the interests of the State? You are guilty now of sin. You are guilty now of exciting me to crime. My professional honor holds your trust inviolable. The law looks askance at your part in the criminal act, in this, the heinous crime of the century, but deals with my part judicially and unmercifully. I am sorry, but I value my conscience, my wife and my family, my honor and my hope of the hereafter. No money can purchase them."

Without a word or even a look she arose and took her departure.

As Dr. Wentworth turned from closing the street door after her, his wife was beside him, two arms were around him—and "Beverley!" was the smothered sob on his bosom.

A few days later the newspapers told the sequel. From the advertising columns of one, she discovered the address of a ruffian, a villain and a quack who did the deed. Beautiful Estelle G—lost her life, a victim of blood-poisoning; and the pestiferous beast of society yielded his on the gallows.

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## METHODS OF DIAGNOSIS OF THE NATURE OF GLANDULAR ENLARGEMENTS AT THE ROOT OF THE NECK.

BY O. C. GRUNER, M.D.

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The means which are available for making a diagnosis of the nature of glandular enlargements at the root of the neck, other than tuberculous and syphilitic, are not called for very infrequently. The advances made during recent years in the study of blood cells and tumor cells suggest more satisfactory methods of diagnosis by the laboratory worker, though the clinician does not have his attention called to them so often. It is the purpose of the present paper to present some data for guidance, with the hope that the clinician may derive more benefit from the microscopic methods of diagnosis than is usually thought possible. The basis

of the remarks which follow is the study of several cases which came to autopsy at the Royal Victoria Hospital, Montreal, added to a collection of similar cases observed in England.

The class of case under consideration is one in which there is a mass at the root of the neck, associated or not with glandular enlargement up the sides of the neck, and with dulness over the upper part of the manubrium sterni. It is assumed that tubercle and syphilis are excluded by the usual means. There may or may not be a slight, possibly periodic, elevation of temperature.

There are three possible methods of aiding the physician or surgeon:

1. By the histological study of an excised gland.
2. By the examination of the blood-films.
3. By the examination of the bone-marrow.

These three methods each have their peculiar pitfalls, and it is proposed to discuss them largely from this point of view. The interpretation of the histological findings of excised glands requires a pre-formed clear conception of the nature of the changes (other than syphilitic or tuberculous) which may occur in them.

1. The histological study of an excised gland. When glandular enlargements of obscure nature have existed for some time it is desirable to make a "test-excision" as long as the absence of any serious adhesions allows this to be done without danger. The tissue so excised should not be subjected to the freezing method of section-cutting, but should be very carefully treated, and the sections prepared slowly and with exact technique. Portions may be placed in formalin if a preliminary report (not earlier than 24 hours) be really desired, but other portions, as thin as possible, should be placed in Zenker's or Orth's fluid. Harris' acid haematein, and eosin and methylene blue are useful methods for staining these tissues.

The structural changes which may be met with are: those of chronic lymphadenitis of different types (excluded in our imaginary case); those of secondary new-growths (carcinoma of different forms, and spindle-celled sarcoma); and those associated with disease of the blood-forming organs.

It may be assumed that the ordinary text-book prevents any difficulties arising in the diagnosis of the secondary new-growths. The problem therefore consists in correctly differentiating certain forms of "blood-disease" by the histological changes which they produce in the lymphatic structures. As regards round-celled sarcoma, however, which is stated in some text-books to occur primarily in lymphatic glands, the view may be here expressed that



true round-celled sarcoma is very likely unknown in this situation, though the presence, microscopically, of a formless arrangement of absolutely similar cells, with scanty supporting tissue and vascular clefts, in place of true vessels, would be suggestive of this kind of tissue. Careful search would probably reveal the presence of some oat-shaped cells amongst the round cells. The cell characters are sufficiently definite; a small cell, with abundant cytoplasm, which stains rather strongly with acid dyes (eosin, erythrosin), a well-defined central nucleus which stains feebly and shows distinct chromatic nodal points.

There is a form of tubercle in which the lymph-node presents not giant-cell systems, but marked hyperplasia of the trabecular tissue and of the endothelium lining the perifollicular sinuses. It is doubtful whether this is not really a form of Hodgkin's disease, and search should be made for other evidence of the latter condition.

We may assume that the true histological picture of Hodgkin's disease is fixed at the type described by Andrews and Reed independently in 1902. The presence of many giant-sized cells, of eosinophiles, and partial or complete loss of gland structure, are the essential points. These cells are arranged almost in a heterogeneous medley, though the different kinds of cells are frequently herded together in different fields of the section. This picture, so suggestive of a granulation-tissue formation, is better labelled "malignant granuloma," the prefix indicating the malignant course of the disease, and that the prognosis is more serious than is generally supposed. The frequent association of the condition with a mass in the mediastinum would point to the presence of the latter, even though it produced only slight physical signs; it would also suggest implication of a persistent thymus. The histological characters of the form which may be expected to erode the neighboring bones and produce serious complications will be referred to later.

In a sense, there is nothing to be gained by making a diagnosis of "malignant granuloma" rather than of "sarcoma" or of "Hodgkin's disease, terminating in sarcoma." The gain lies in the more correct conception which is obtained by classifying this type of disease with the blastomyces and other mycoses, and thus separating it off from the pseudoleukaemias. The distinction of the two varieties of Hodgkin's disease was drawn attention to by Martin (*Journ. Med. Res.*, 1901, p. 249), who classified them as infectious granuloma and lymphosarcoma, respectively. Since the latter condition is sometimes associated with simultaneous development of

changes in the diffuse adenoid tissues of the body, it should be subdivided into lymphoma (pseudoleukaemia of some authors) and lymphosarcoma.

A few words will suffice to explain the features of the pseudo-leukaemic enlargements of the glands of the neck (which are best differentiated entirely from "lymphosarcoma"). The microscopic section shows a dense aggregation of small round cells, with very little fibrous tissue and entire loss of structure of lymph-node. This class of case may be, and has been, incorrectly called small round-celled sarcoma. Scrapings of the gland stained by blood-staining methods demonstrate the real nature of the constituent cells.

Lymphosarcoma of the glands of the neck. Some of the cases so described in the literature are nothing more than malignant granuloma. Others are identical with the pseudoleukaemic type already described. Others, however, occur where the tissue is almost entirely made up of large multinucleate cells and a sprinkling of lymphocyte-like cells amongst them. The multinucleate cells give the tissue an appearance somewhat recalling that of myeloid sarcoma, but the nuclei in the giant cells are few in number and large in size in the case of lymphosarcoma.

2. The examination of the blood-film. The red cells show changes in number in all the conditions referred to, and the color index is lower than unity. The total white cell count varies so much that definite rules become impossible. In pseudoleukaemias there is a tendency to absolute and relative increase of the neutrophile leucocytes, though the variation of these values with the periods of pyrexia, which tend to occur, indicates that the leucocytosis is of secondary importance. A very decided increase of the lymphocytes, especially if they were all abnormally large, would point to lymphemia (lymphatic leukaemia), but this diagnosis would have been made before a test-excision had been undertaken. The histological appearances would be identical with those described for pseudo-leukaemia. A moderate grade of lymphocytosis may be expected in the simple chronic inflammatory cases, but in lymphosarcomas there is sometimes a relative increase of the large mononuclears, as well as of the lymphocytes. The increase of the lymphocytes and the finding of unusual forms of the same (senile types, meso-lymphocytes, lymphocytoid large mononuclears, etc.) would be expected in the malignant granulomas. The details of analysis of blood cell counts on this plan cannot be dealt with in the limits of this paper.

3. The examination of the bone-marrow. This was advocated by Ghedini, who performed many exploratory punctures of the

bone marrow on the living subject. From autopsy experiments the writer is able to state that such a procedure, especially while the patient is under an anesthetic for the test-excision, would give valuable results. The presence of well-marked changes in the bone-marrow cell-count would indicate if there were any generalization of morbid processes in the blood-forming organs. The presence of multitudes of medium and small lymphocyte forms rather than of members of the myeloblast and erythroblast series would furnish very valuable information. The examination is made by staining the carefully prepared smears of the juice obtained by trocarizing the tibial head, following the methods in vogue for blood-cell work.

Lastly, a few words of comment upon the typical findings to be expected in the form of disease labelled malignant granuloma. There are three cardinal features: (1) A special type of giant cell, which is present in large numbers. The cell is usually un-nucleate. The nucleus is large, pale, rich in peripherally situated chromatin granules. There is an excentric nucleus which stains metachromatically with erythrosin. Sometimes the nucleus becomes multiple by budding, and also becomes coiled into a ring form exactly comparable to the basket formation of nucleus in normal bone-marrow giant cells. In other words, as first pointed out by Kurt Ziegler, these cells are exactly like cells which might be thought to have wandered from the bone marrow into these remoter situations. The absolute size of these cells—some of them are truly monstrous—makes it extremely improbable that such migration could have taken place. The writer would sooner suppose that some stimulus had excited the endothelial cells already present to undergo metaplastic transformation into this type of cell.\*

(2) The second feature is the occurrence of necroses. These phenomena are not pathognomonic of any disease. It is easy to understand that from focal thrombotic processes, or superadded bacterial infections, necrotic changes ensue here just as elsewhere. Where the disease is associated with increase of lymphocytes in the blood-stream there is loss of resistance of microbial infection, as is so well shown in leukaemias. This is also shown by the fact that

\*It seems to be essentially correct that the various small round cells which we see in chronic inflammations, and in small round-celled (so-called "tumor") tissues are not necessarily identical in origin, destiny or function. Just as the genealogical table of lymphocytes—lymphoid cells—in inflammatory tissues is coming to be recognized as a complicated one, each member of the chain being capable of reversion of character to that of a previous stage, and existing only transitorily in a certain morphological form, so in some of the other small round-celled aggregations, there must be fundamental distinctions between the cell-types. The different cells in a malignant granuloma may all have varying life histories and change their type with age, and as a result of varying toxic stimuli.

Coley finds his fluid to give rise to excessive reaction in Hodgkin's disease and leukaemia.

(3) The character of the eosinophile cells. It will suffice to draw attention to the difference which these cells exhibit from ordinary eosinophile cells. Many of them seem to be changing into plasma cell forms or to be derived from the latter. The evidence for this view will be presented separately.

The tendency to fibrosis of the glands, indicating a later stage of the disease, has already been referred to.

Conclusions: (1) That the word, Hodgkin's disease, requires to be replaced by two pathological terms—the malignant granuloma and the lymphoma (pseudo-leukaemia).

(2) This distinction would entirely remove the difficulties of diagnosis and the discrepancies between clinician and pathologist.

(3) That malignant granuloma is not pseudo-leukaemia, but is a definite pathological entity, probably of infective origin.

(4) That the diagnosis can be made during life by test-excision, supplemented by study of the lymphocyte forms in the blood films; the adoption of simultaneous study of the bone-marrow cells would materially help.

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## REPORT OF A CASE OF ACUTE APPENDICITIS, ILLUSTRATING THE VALUE OF A DIFFERENTIAL LEUCOCYTE COUNT.

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In an address, delivered at Rush Medical College Commencement, June 15, 1910, Dr. W. J. Mayo, among other things, gave this advice to the graduating class: "Write papers; they will do you much good, although at first they may not benefit anyone else." For a number of years I have been writing occasional papers, and have found it very true, that they have been of benefit to myself, at least, because, in order to write a paper, one has to institute a wider range of reading and investigation than he otherwise might do. It has been a stimulus, too, for closer observation of my cases, as well as an inducement to visit clinics, laboratories and hospital wards, where I could see things for myself. It is now well recognized that the leucocyte count in itself is of little or no value in surgical diseases, as far as diagnosis or prognosis is con-

cerned, but it is generally believed that the differential count may be of the greatest value, particularly, the disproportion between the increase in percentage of the polymorphonuclears and the actual increase in the leucocyte count itself. Gibson, of New York City, who devised a "standard chart" for the visible expression of this disproportion, says, in the *Annals of Surgery*, 1906, page 485, in speaking of the relative disproportion between the differential and total counts, "Bodily resistance is more clearly defined by this disproportion than by any other means at our command, and that of all methods of blood examination, this is the most valuable, both from the standpoint of diagnosis and prognosis." Dr. H. W. Hewitt, in an article in the *Annals of Surgery* for December, 1911, on "The Value of the Leucocyte Count in Acute Inflammatory Surgical Diseases," among other things, concludes as follows: "that in acute inflammatory surgical diseases, repeated counts at frequent intervals should be made, and if the polymorphonuclear percentage rises, while the total number of leucocytes remains stationary or falls, immediate operation should be insisted upon." He also says, "No definite percentage of polymorphonuclears can be taken to positively indicate infection. If we have a percentage of between seventy-five and eighty of polymorphonuclear cells, infection is probable; if we have a percentage of between eighty and eighty-five, infection is usually found; if we have a percentage above eighty-five, infection is almost invariably encountered." He further says, "No one will deny that repeated counts are of much greater value in diagnosis than one isolated count." Emphasizing this same point, Gibson says, "The importance of a disproportionate increase of polymorphonuclear cells, particularly if progressive, cannot be overestimated, and those wilfully disregarding such evidence are perhaps not exhausting all resources available for diagnosis." Herbert French, of Guy's Hospital, says, "If the polymorphonuclear count is high, without a marked leucocyte count, it means that the pus is under great pressure." The case I am about to report bears out these conclusions.

Mr. G., age 33, traveller, presented himself at my office about 2.40 p.m. on November 28, 1911, with the following history:

Five weeks ago, he said, he was taken sick with severe abdominal pains. His family physician, Dr. Archer, at Port Perry, who was called in, diagnosed his condition as appendicitis. He recovered in the course of a week, and had been well ever since, until the forenoon of the day he consulted me, when he was seized with nausea and was unable to eat any dinner. He took the afternoon train from Lucknow, intending to go home, but while on the train

between Lucknow and Wingham, a distance of ten miles, was attacked with severe pain across the abdomen, and upon reaching Wingham, he came to my office, asking for medicine to relieve this pain, so that he could catch a later train and go on to Toronto that night. He was a tall, rather muddy-complexioned young man, with an anxious facial appearance, and exceedingly nervous and apprehensive about his condition. Upon examination, I found his temperature normal, his pulse 62. He had not vomited, but was nauseated. A physical examination of the abdomen showed tenderness just below the navel, in the hypogastric region, and also a little to the right of McBurney's point, in the right inguinal region. There was no tenderness in the upper quadrants or left side of the abdomen, and even the walls of the lower right quadrant were not especially rigid at this time. At 3 p.m. my assistant made a blood count, which showed a leucocytosis of 16,000, the differential count showing the polynuclears to be 72 per cent. I diagnosed appendicitis, and advised Mr. G. to enter the hospital here, where we would keep him under observation for a few hours to determine whether his condition would improve or not. He, however, asked me if I could not relieve his pain, as he was anxious to go on to Toronto. I told him that it was easy to relieve his pain, but that did not mean his cure, and that I thought it very ill-advised to undertake such a journey in his present condition. After a short explanation of the dangers of appendicitis, he told me that he was quite ready to do anything I advised. I accordingly sent him to the hospital, where, upon entering at 4 p.m., he had a temperature of 92.5 and a pulse of 65. Before taking him to the hospital, however, and having satisfied myself with my diagnosis, I gave him a quarter of a grain of morphine. At 7 p.m. his temperature was 99.45, pulse 82, and blood count showed a leucocytosis of 17,290, the differential count showing polynuclears to be 89 per cent., certainly a very rapid and alarming increase in the polynuclears. At this time he was not complaining unduly of pain, being still under the effects of the opiate; but upon abdominal examination there was increased tenderness over the region of the appendix, and the muscles of the right lower quadrant were becoming quite rigid. I now examined his heart and chest and found that he had a marked systolic murmur at the base of the heart. At 9 p.m. I saw him again, his temperature now being 100.35 and pulse 84. As there had been a considerable increase in the percentage of the polynuclears, this increase exceeding the corresponding increase in the leucocyte count, his temperature continually rising, and the rigidity in the right quadrant of the abdomen becoming more marked all the time,

I advised immediate operation. This he at once agreed to, and accordingly, without any preparatory treatment, he was anesthetized with ether by my assistant, Dr. M. C. Calder. The abdomen being prepared by benzine and iodine, according to the Mayo method, after etherization I opened the abdomen, using a low McBurney incision, and found the omentum presenting. Without the slightest difficulty, I pulled out a large, angry, thickened and inflamed appendix, which was apparently almost ready to rupture. Although the omentum presented in the wound, it had formed no adhesions to ward off the danger. The appendix was amputated in the usual way, the stump being inverted by means of the Gould reversed mattress stitch, and the incision was closed in the usual manner, using horsehair for the skin. After operation, upon taking the clamp off the end of the amputated appendix, the pus poured out. He rallied nicely from the anesthetic, and was never nauseated after the operation. He made a splendid recovery, with the exception of a small hematoma, which formed under the skin and delayed union for a few days. Here was a case sick less than twelve hours, and yet the "pathology of the living," in this case, leads me to believe, if this man had not been operated upon at once, that within a very few hours there would have been rupture of the appendix, septic peritonitis, and probably death.

I have frequently seen clinical symptoms just as marked, and in fact more so, and yet recovery take place without operative procedure. If the clinical symptoms had not been reinforced by the blood examination, his determination to proceed on his journey would undoubtedly have overbalanced my insistence on immediate operation, and in all probability have led to his death. Accepting the findings of well-known laboratory workers, I considered the rapid disproportionate increase of the polymorphonuclear cells from 72 per cent. to 89 per cent. in a few hours, over the slight increase in the leucocyte count, of the gravest significance, and acted accordingly.

The pathological examination was made by Professor McKenzie, of Chicago. He states that the case was one of "acute, exudative, fibro-purulent appendicitis." Having given Dr. McKenzie the history of this case, he also makes the following observation on it:

"The differential count, as you have described it, undoubtedly indicates a rapid destructive process, actively stimulating the formation of protective substances. But when we know that the formation of protective substances may cease at any time, I do not see why operation should not be insisted on and a favorable prognosis given. From all our present knowledge on immunity and infection, the prognosis should be favorable when operation is allowed."

His pathological report is as follows:

“There are many distended vessels in the serous and outer muscular coats, while the inner muscular, submucous and mucous layers are infiltrated by an extensive purulent exudate. On the artery walls may be seen many strands of fibrin, which induced me to call the condition fibro-purulent appendicitis. The meso-appendix contains a quantity of fatty tissue and distended vessels. I was unable to find any pathological condition that might predispose or induce the inflammatory process, except pus infection.”

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## A PLEA FOR THOROUGH AND SYSTEMATIC STUDY OF THE MATERIA MEDICA AND THERAPEUTICS.

BY FINLEY ELLINGWOOD, M.D.

Editor of Ellingwood's Therapist, Chicago, Illinois.

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It is a generally accepted fact among those who pay any attention to the development of the study of the curriculum demanded of medical students that there is altogether too great neglect at the present time of the study of the materia medica, and that the study that is demanded is cursory, desultory, and almost entirely devoid of attraction to the students.

The physicians themselves, being asked to take an introspective view of their own knowledge of the Materia Medica, if they are honest, in the majority of cases are overwhelmed with their own ignorance of the detail of specific or exact action of drugs. Many of them blame their *alma mater*, and those that should lead in medical knowledge, for this ignorance, but I am inclined to think the individual himself is much to blame, as well.

The total profession has made marvelous advancement in the last three or four decades in the study of bacteriology, pathology, microscopy, in the development of laboratory methods of drug study, and in the study of preventive medicine and of surgery, but in doing this the individual has spent so little time upon the all-important subject of Materia Medica and Therapeutics that he actually, in many particulars, knows less of drug action to-day than he did thirty years ago. I say this advisedly and regretfully, but the individual physician is not as much a student of Materia Medica to-day as he was in the past, because the study then of Materia Medica was accounted the most important branch. It was



not overshadowed by surgery and the so-called scientific branches. To the physician, then, the all-important knowledge was to know *what medicine* to give to his patient when ill, that would *cure*.

The study of this subject is difficult. It demands concentration; it demands persistency, and unless applied to the immediate needs of the patient, unless we can make immediate application of the knowledge acquired, it is startlingly devoid of interest. It is not exact, and every student delights in exactness. But why is it not exact? It is because our total knowledge of the subject, in the first place, is imperfect; secondly, the study is not conducted in systematic, precise, scientific lines. It is not properly classified or arranged; the study is not made consistent with an exact principle of drug action.

My object in writing this paper for this journal is to attract the attention of the readers to a renewed study of the action of drugs; to the study of drugs in line with a principle at once exact, rational and attractive, and to encourage persistence in this study in these lines until the student shall have acquired a knowledge and an experience that in itself will stimulate him to a most enjoyable persistence in the study, and will enable him to say that there is in this study, when correctly conducted, a fascination that no other study possesses.

I have been trying to teach for many years the following facts: that the reason disease is not cured is because *we have the knowledge of drug action* necessary with which to cure it, or, conversely,

That failure to cure disease is due to lack of knowledge;

That disease will ultimately be subdued, in whole or in part, by remedial measures;

That doubt concerning drug action is a deadly foe to therapeutic progress;

That the study of the clinical action of the single drug is *the only true method* of drug study;

That each drug acts directly and invariably upon one or more exact conditions of disease, and, being so studied and known, an exact, reliable knowledge of drug action is obtained;

That when this knowledge is perfected we will not only prescribe for known conditions of disease with immediate success, but we can prescribe with equal success for conditions we have not previously met.

We begin our study, then, with a perfect analytical study of each disease in order to determine those conditions which are involved, in the patient we are studying at this time. We determine a knowledge of these conditions, and an ability to recognize them

whenever we find them, in whatever disease they may occur. We then determine what single remedy will always meet each one of these conditions and correct it. Here is the whole thing in a nutshell, and really this is all there is to it, as this includes a thorough knowledge of the remedies, also, with refererce to their action upon exact conditions, as stated above.

I trust each reader will read and re-read these statements until he has them clearly impressed upon his mind, and will weigh them fully with reference to his own methods of studying the action of drugs, that he may compare the beauty of this method when completed, with any other known method.

It must be accepted at once that *this is the only correct method* of drug study. If we prescribe compounds because the manufacturer has advised them for certain conditions, we acquire no precise knowledge of the action of the constituents of that compound, and our prescribing is haphazard, uncertain, and largely guesswork. If we should, by close study, know the invariable therapeutic properties of each one of the constituents of that compound, we are enabled to determine whether the total compound is applicable in the case required, or whether one or two of its constituents would not work even better, or whether it is not totally inapplicable.

But if we understand drug action as above specified, we will seldom, if ever, find an excuse for prescribing a compound, especially one prepared for general conditions, but we will invariably find demands in the condition present in the patient we are prescribing for, for one, two or three single remedies of which we feel confident, and will thus promptly make a perfect adjustment to the case in hand.

This is the course we adopt in every patient, and this is the course we will adopt when we have learned our drugs, and studied specific conditions, as above suggested, and when we adopt this course the results obtained will be so satisfactory the observations made will be so rational and consistent, and the confidence we will acquire in the knowledge we have so obtained will be so much in advance of any knowledge previously acquired that the real fascination of this method will impress itself upon us, and in the future we will find ourselves willing students of the specific method of drug application.

Applying this method to the study of well-known drugs, every student is surprised at the amount of knowledge thus obtained concerning the action of some very common remedies—knowledge of actions he had no idea could be present in that drug, materially broadening the field of the drug and increasing its value to the prescriber, in some cases a thousand-fold.

Furthermore, those who have been developing this method have made observations of a great many drugs that are seldom mentioned by the principal medical journals, or prescribed by the profession at large, and which are but little known, or are spoken disparagingly of by the Committee on Pharmacy and Chemistry of the A.M.A., but which possess values, when studied in this line, actually superior to very many drugs upon which volumes have been written, as standard drugs, and as those which could not be done without.

Many of the readers of this journal have learned something in an empirical or general way concerning the action of digitalis, or aconite, strophanthus, or quinine, ergot, nux vomica, belladonna, ipecac, gelsemium, turpentine, or jaborandi, as common remedies; but it is certain that studying these remedies from a specific standpoint, we have an entirely different study, and one which brings out beauties not before anticipated.

Added to this, every individual should study from this standpoint echinacea, baptisia, berberis, hamamelis, viburnum, mitchella, collinsonia, dioscorea, colocynth, iris, chionanthus, podophyllum, sanguinaria, aselepias, sticta, euphrasia, lobelia, apocynum, cactus, crataegus, calibarbean, pulsatilla, hypseyamus, rhus tox, and perhaps one hundred and fifty others that I could mention, and he would be surprised beyond measure at the knowledge that would develop, and in the ability he would have in the knowledge acquired, to cope with disease in a satisfactory manner far exceeding anything he had ever hoped or known.

It is to encourage a study, as I have said, in these lines, of both the old and the new Materia Medica that I am writing this paper. It is to disparage the common use of compounds and general pharmaceuticals, used with the *hope* only that they will cure the conditions for which they are prescribed, when a *knowledge* of exact drug action will enable the prescriber to absolutely *know*, without doubt, what will cure his patient, will make him able to cure the condition with positiveness and assurance, thus establishing the confidence of his patrons in his ability, first, and secondly, which is indeed most important, to establish their confidence in the fact that disease *can be cured* with the measures accessible to the physician.

Ignorance of drug action and doubt—therapeutic nihilism—has directly undermined the confidence of the people until the drugless methods of cure are now sought for and adopted by at least 30 per cent. of the population of the United States, until the surgeon is in demand only to any great extent. Faith in these drugless

methods cannot endure; they are auxiliary only. Let us at once re-establish the faith of the masses in correct drug action.

While I thus urge this method upon the individual physician, this knowledge cannot be acquired at once. To become an efficient prescriber, one must be drilled in this study through a long period. I think it is necessary, also, that he forget much of the desultory knowledge, many of the unsystematic empirical facts, he has previously known.

To have this method properly woven in with the web and woof of his total education, it should be begun with his first day's teaching in college, and should be continued with every day's instruction during the entire course. It is a deplorable fact that so little *Materia Medica* and Therapeutics is systematically, clinically, and thus practically, taught in any of the colleges; and I fear there will not be much improvement in this course until the individual practitioner and the profession as a body *persistently insist* upon a more thorough teaching of this all-important branch.

I would be gratified, indeed, and I believe it would result in a most valuable discussion, if the reader of this paper would express freely his own opinions on this matter through the pages of this journal. All sides of the subject should be presented.

## Medicine

GRAHAM CHAMBERS, R. J. DWYER, GOLDWIN HOWLAND,  
GEO. W. ROSS, WM. D. YOUNG.

### An Inquiry into the Influence of the Menses on the Onset and Frequency of Epileptic Fits. By WILLIAM ALEXANDER, M.D., F.R.C.S. *Medical Press and Circular.*

The practitioner is constantly being urged to sanction pelvic operations for the treatment of epilepsy or to regulate the menses, when they tend to be irregular in these patients.

The feminine mentality considers that epilepsy like nearly all other nervous disorders must have its seat in that chamber of mysteries, the pelvis, a belief that unfortunately is fostered by many physicians.

Alexander states that the nurses say that at the periods the patients usually are worse and have more numerous and severe attacks.

The principal writers on epilepsy agree that epilepsy often commenced with the onset of menstruation; that delayed or disturbed function at puberty may coincide with the appearance of the disease, which, if of earlier onset, may then become more severe; that the period of menstruation determines the occurrence of the more severe or more numerous attacks.

Alexander has the statistics of 23 years of the epileptic homes at Maghall, and the first fact that he clearly proves is that in the vast majority of cases no influence was occasioned by the menstrual period on the production of the attacks. (In 666 months there were no fits in the menstrual fortnight compared with 334 which showed them, and in these latter cases many also had attacks in the fortnight furthest separated from the period.)

Also statistics showed that during the days immediately preceding or following the time of menstruation, there was no relation to be deduced relative to its influence on attacks.

Fifty-two of the cases developed their attacks years before the normal age for menstruation and in 17% the fits appeared years after its advent, while in only six cases did the two coincide.

Dr. Alexander can, therefore, lay no stress on any relation between the production of epilepsy and the occurrence of men-

stration, and in general this function does not in any way influence the attacks.

Surgical interference with the pelvic organs he strongly deprecates.

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### Flatulence.

Burnet, in the *Practitioner* for October, 1911, says that in most cases the diet will have to be carefully chosen and somewhat restricted. A rather dry diet will be found to suit best in nearly all cases—little liquid being allowed with meals. This excludes all soups and broths at the beginning of a meal and allows of only a small quantity of fluid toward the close of the meal. What the special drink should be has to be decided in each particular case. Some will do best with plain water, others may require a little stimulant—alcohol in some form.

We have to consider carefully in these cases whether alcohol is necessary, and if so what form is best. If given it should be prescribed with caution, more especially in the case of women suffering from dyspepsia, for oftentimes the temptation to seek temporary relief by its means from discomfort and flatulent distention, and the lassitude accompanying these conditions, is very great. From such beginnings a dependence upon alcoholic stimulants sometimes becomes established. If alcohol has to be given the amount should be clearly defined and given with or just after meals. Effervescing waters are often forbidden, but in the writer's opinion, if taken in strictly limited amount, they are helpful rather than otherwise, owing to the stimulus given by the gas they contain. The light white wines and clarets are of doubtful value, but sometimes a glass of dry sherry seems to aid digestion. Champagne is rarely required, but in some cases where there is much prostration it is useful for a time. Ales and stout are not as a rule well borne. No alcohol in any form should be given on an empty stomach.

Tea must be limited in quantity and must be freshly made. The stewed decoction called tea, so dear to the heart of the hospital out-patient, is a fruitful source of these digestive troubles and of the "spasms" so graphically described by the frequenters of hospital out-patient rooms. Distention and disturbances of digestion are not, however, by any means confined to the class of persons who come under treatment at hospitals, and as a source of flatulence the excessive use of tea amongst well-to-do people should be always borne in mind.

Animal food is, as a rule, best digested by these patients; it must

be carefully selected and well, though plainly, cooked—under, rather than overdone; tender beef and mutton, chicken and other birds, game, and fresh white fish. Pork, veal, goose, duck, etc., should be forbidden. It will be often found best at first to limit the meat meals—luncheon and dinner—to practically one course, light tender meat and a little vegetable with a biscuit and butter to follow. Such green vegetable will usually not be well borne, and what is given should be rubbed through a sieve—cooked as spinach is served. Often it is best to forbid potato for a time, and to substitute toast or second day's bread. Farinaceous foods have to be given carefully and the effect watched, but where digestion by the stomach is chiefly at fault starchy foods, as they are dealt with chiefly in the intestines, may be given in greater amount. The contrary holds good where digestion goes on best in the stomach; then meats are most satisfactorily digested. Ripe fruits have to be taken in great moderation, and raw vegetables, salads, etc., are not usually allowable in the earlier stages.

Whether meat preponderates in the dietary or farinaceous foods, the absolute necessity for slow eating and complete mastication of all solids should be strongly and repeatedly impressed upon the patient. It is always well to ascertain the condition of the teeth, and not infrequently some repairs have to be carried out by the dentist before complete and comfortable mastication can be attained by the patient.

*Nux vomica* is one of the most useful remedies in these cases and it may be given in tincture, or in pill with a quarter of a grain of capsicum and a couple of grains of compound rhubarb pill. Bismuth is of use in many instances, with an alkali such as bicarbonate of sodium, and calumba or other bitter infusion. Salicin is not used so much as we believe it might be, and given in five or ten-grain doses in water before meals is often very helpful. Pepsin seems distinctly indicated, but it is often disappointing, and at the best it must be looked upon more as a palliative than anything else. Pancreatin, too, does not give the relief in all cases that we should expect from it. Salicylate of sodium with liquor pepticus, *nux vomica* and spirits of chloroform seems useful in a certain number of cases. Extract of malt given with or just after meals helps in those cases in which the digestion of starchy foods is obviously difficult. A few drops of dilute hydrochloric acid in water shortly after meals is often decidedly beneficial. In some cases iron and quinine seem to be indicated, and in many cases we prescribe them only to find how difficult it is to get them to agree, especially in the earlier stages. When improvement has set in they may be tried

with more confidence. A pill which is often well borne consists of a grain of reduced iron, with extract of nux vomica, quinine and pil. rhei comp. It acts as a tonic and also as a mild aperient. It may be varied by a grain of pepsin and a twentieth of a grain of arsenous acid in place of the quinine, and it is useful in anemic subjects. Calomel in very small fractional doses, given twice daily for a few days at a time, has often a very good effect, and where there is a sluggish action of the liver a grain or two of blue pill with the pill colocynth and hyoseyamus, or the compound rhubarb pill, should be given occasionally and followed, if necessary, by a mild saline in the morning, but anything like strong purgation should be avoided.

Where the distention is chiefly in the bowels salicylate of bismuth, beta-naphthol, and salol, in cachet, give at least temporary relief.

Lavage is not usually needed in the cases we are considering, but where there is much accumulation of mucus it is very helpful by clearing the stomach and thus giving a fair start to other treatment.

In acute attacks of flatulence hot water, with aromatic spirits of ammonia and spirits of chloroform with perhaps a teaspoonful of brandy, often relieves the tension and spasm. Sometimes a drop or two of oil of cajuput in mucilage has a very good effect.

In cases in which it is possible for the patient to follow such advice we may recommend riding on horseback or traveling, sea-bathing for young subjects, or a voyage, as the best means for completing the cure and preventing a recurrence of the symptoms.—*Therapeutic Gazette.*

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Dr. Taylor, so aptly called the Canadian doctor's friend, is gradually gaining the reputation of one of the most careful and pre-eminent neurologists in Great Britain, and Sir William Gowers has wisely selected him as his closest associate.

Taylor, who is no longer young, states that in his experience (which is a vast one) that he each year is inclined to diagnose functional nervous disease less frequently, and more often to suspect an organic basis. He also states that the disease, disseminated sclerosis, is becoming in England the dumping ground of indefinite diseases (a tendency observed also in Canada).

Spinal Caries is a disease in which the nervous signs are very variable, and it is possible to have complete motor paralysis in the



legs and yet no curvature visible, and no loss of sensation perceptible in either extremity.

Often in these organic diseases which ultimately cripple, such as insular sclerosis and that more fatal disease subacute combined (which by the way seems fairly common in this country) you will find a markedly hypersensitive, even hysterical mental condition associated with spinal symptoms.

Dr. Taylor describes a case of tabes with gastric crises, and in doing so emphasizes the facts that ataxia may not be a cardinal sign in this type, and also that they frequently live for many years. These cases are mistaken on account of the gastric signs for severe abdominal conditions, and in this regard he refers to an American who displayed two large scars, from the operations performed on erroneous diagnosis. (This recalls to my mind a case seen in my student days when a man was operated on for stone in the kidney, on alternate sides, without success and where the diagnosis was ultimately found to be tabes. Perhaps this is Taylor's case.)

Retrolubar nerve disease causing loss of vision may be the first symptom of some diffuse nervous disorder, and in connection with ocular conditions it is also necessary to recall the fact that Graves disease may be earliest evidenced by the prominence of one eyeball only, while in other cases no signs appear but diarrhea, wasting, cardiac rapidity and discomfort.

Taylor adds that he has never yet advised operation for Graves disease, and that belladonna is his sheet anchor.

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### **Treatment of Gastric Ulcer by Lenhartz's Method.** By JOHN J. GILBRIDE, A.M., M.D., PHILADELPHIA.

Lenhartz's treatment takes two weeks—it is essentially a dietetic form.

He, however, orders four weeks in bed at absolute rest, and uses the abdominal icebag.

Iced milk and eggs, raw and iced, are given every alternate hour from an "iced" spoon; and the day's treatment begins at 7 a.m. and lasts until 9 p.m., with no night treatment.

About 100 c. of milk and one extra egg is added to the total of the preceding day, so that at the end of one week 800 cc. of milk and 8 eggs are being taken. Sugar is added to the eggs on the third day, but only 35 grammes of raw beef on the sixth day, while from the 7th to the 10th 80 gms. are given.

After 3—4 weeks a return to natural diet is allowed. The cases reported were successfully treated.

## Reviews

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W. B. Saunders Company have just issued a new (16th) edition of their Illustrated Catalogue, which describes some forty new books and new editions published by them since the issuance of the former edition. The books listed in this catalogue cover every subject of interest to the medical man. The descriptions and illustrations are such as to enable the reader to select easily just the book he wishes on any branch. It is really an index to correct medical literature—an index by which the practitioner, the surgeon and the specialist can acquaint himself with what is new in the literature of his subject. This edition also contains an illustration and description of Saunders' new building, now being erected on Washington Square, Philadelphia's new publishing centre. Any physician wishing a copy of this handsome catalogue can obtain one free by addressing W. B. Saunders Company, 925 Walnut Street, Philadelphia.

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*The Taylor Pocket Case Record.* By J. J. TAYLOR, M.D. 252 pages, tough bond paper; red limp leather. \$1.00. Published by The Medical Council Co., Forty-second and Chestnut Streets, Philadelphia, Pa.

The object of this book is to encourage more accurate observation and study of cases by supplying a convenient form for a condensed record of each important case, in pocket size, so that the practitioner can have it always with him, and so arranged that the necessary data can be written down in the briefest possible time—preferably while the examination is actually being made.

Thoroughness of examination is encouraged by means of a Syllabus, detailing all the points that should be considered in each case.

The blank for the first thorough examination, diagnosis and treatment is followed by spaces for sixteen subsequent visits.

The book provides for 120 cases.

*Blair's Pocket Therapeutics.* A Practitioner's Handbook of Medical Treatment. By THOMAS S. BLAIR, M.D., Neurologist to Harrisburg, Pa., Hospital; Author of "A System of Public Hygiene," "Blair's Practitioner's Handbook of Materia Medica," Member of the Harrisburg Academy of Medicine, American Medical Association, etc.; 373 pages, special Bible paper; bound in limp leather; price, \$2.00. Published by The Medical Council Co., Forty-second and Chestnut Streets, Philadelphia, Pa.

The physician very frequently needs, for instant reference, a book which gives the best methods of treatment in any given case. Many books have been offered for this purpose, but they consisted only of collections of miscellaneous prescriptions and formulas, totally unrelated to each other, with no rules or reasons to guide in their use, and almost useless to the physician with any independence of thought or scientific bent of mind.

This book gives a condensed intelligent discussion of the best methods of treatment, based on scientific principles, with a well-tryed, reliable formula occasionally to illustrate the application of the principles. The author gives many modes of treatment far in advance of the present text-books. An ingenious method of indicating relative dosage is to print the name of the drug in CAPITAL LETTERS for large doses, in ordinary type for medium doses, and in *italics* for small doses. An exhaustive "Table of Large, Medium and Small Doses" is given in the book.

The diseases treated are divided into related groups, each group occupying a chapter, according to the following classification (a copious alphabetical index provides for instant reference to any particular disease):

Chapter I. Diseases Incidental to Birth. II. Essential Diseases of Childhood. III. Essential Diseases of Environment. IV. Diseases of Occupation. V. Infectious Diseases. VI. Diseases of the Pericardium. VII. Diseases of the Heart. VIII. Diseases of the Blood Vessels. IX. Diseases of the Bronchi. X. Diseases of the Lungs. XI. Diseases of the Pleura. XII. Diseases of the Mouth, Salivary Glands and Esophagus. XIII. Diseases of the Stomach. XIV. Diseases of the Pancreas. XV. Diseases of the Intestines. XVI. Diseases of the Rectum. XVII. Diseases of the Liver and Gall Bladder. XVIII. Diseases of the Spleen. XIX. Diseases of the Peritoneum. XX. Diseases of the Uropoietic System. XXI. Diseases of the Lymphatic Vessels. XXII. Diseases of the Thyroid

Gland. XXIII. Nutritive Disorders. XXIV. Diseases of the Blood. XXV. Mental Diseases. XXVI. Diseases of the Brain and Meninges. XXVII. Diseases of the Spinal Cord. XXVIII. Diseases of the Peripheral Nerves. XXIX. Diseases of the Muscles. XXX. Animal Parasites. XXXI. Alcoholism and Drug Addictions. XXXII. Diseases of the Skin. XXXIII. Diseases of the Hair and Nails. XXXIV. The Principal Diseases of the Eye. XXXV. Diseases of the Ear. XXXVI. Diseases of the Nose. XXXVII. Diseases of the Tonsils, Pharynx and Larynx. XXXVIII. Obstetrical Therapeutics. XXXIX. Non-Surgical Gynecology. XL. Surgical Therapeutics. XLI. Essential Diseases of Old Age. XLII. Treatment of Poisoning (arranged Alphabetically as to the Different Poisons). The Appendix gives very many necessary tables for quick reference, followed by an exhaustive Table of Doses, closing with a General Index.

In order to get all this within the compass of a book for the pocket, a very thin, tough Bible paper has been used, so that it is really a much larger book than it looks.

This book will be a useful pocket companion to the physician in his daily work.

# Dominion Medical Monthly

And Ontario Medical Journal

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## COMMENT FROM MONTH TO MONTH.

**Lord Lister**, born on April 5th, 1827, died February 11th, 1912, in his 85th year. No other medical man in modern times, with possibly the single exception of Pasteur, was so universally known, respected and beloved. He was, indeed, one of the great benefactors of mankind.

Although Lister's name will be forever inseparably associated with the antiseptic theory applied to surgery, paving the way for the later asepsis, he simply sharpened the sword. He did not forge it.

"Robert Boyle foresaw that the man who should discover the true nature of fermentation would shed light on infective disease."

Holmes and Semmelweis maintained with regard to puerperal fever that certain bodies or organisms were the cause of this disease, as it had been suspected they were the cause of pyemia as well. The latter, without much theory at all, is said to have saved many lives by antiseptic principles.

Lister was inevitable after Coginard Latour's discovery that yeast consisted of living cells, susceptible of reproduction by a sort of budding process.

Pasteur showed that fermentation in beer and wines was due to living organisms, and that all putrefaction was due to a similar cause.

When the principle that suppuration was a fermentation of the flesh was established, the suggestion was soon evolved that suppura-

tion could be prevented by preventing access of the germ or destroying it when present.

This proved proposition of the germ theory then led to the application of antiseptics to surgery.

Carbolic acid was discovered in 1834 by Lange. Liebig in 1844 and Calvert in 1851 investigated its disinfectant properties. Lemaire made his first experiment in a case of gangrene in 1859; and published his book on carbolic acid in 1863, the date of the discovery of the first microbe of disease.

The Italian surgeon, Bottini, published an article in 1866 on the use of carbolic acid in surgery and taxidermy.

Lister's work is immortal. He began that work in 1865, and the place where he conducted his experiments was the Glasgow Royal Infirmary.

Reports of this work were first published in *The Lancet* of March 16th, 23rd and 30th, April 27th and July 27th, 1867.

The natural heir of Pasteur, in 1874 he acknowledged his indebtedness to that great scientist in these words: "Allow me to take this opportunity to tender to you my most cordial thanks for having, by your brilliant researches, demonstrated to me the truth of the germ theory of putrefaction, and thus furnished me with the principles upon which alone the antiseptic system can be carried out."

Lister early directed his mind towards science. After having been graduated in London in 1852, at the age of twenty-five years, he published papers on the muscular tissue of the skin and the contractile tissue of the iris. Between the years 1857 and 1862 his writings, considered remarkable and illuminating, dealt with inflammation and coagulation of the blood.

He was appointed Professor of Surgery in the University of Glasgow in 1860, later going to Edinburgh, and then to King's College, London. He was knighted in 1883 and raised to the peerage in 1897.

His claim to fame rests upon his conclusive demonstration, founded upon personal observation and application of the antiseptic utility of carbolic acid. Medical literature has fairly teemed with the brilliant results, the outcome of his life-work. Of him Henley wrote:

"THE CHIEF."

His brow spreads large and placid, and his eye  
Is deep and bright with steady looks that still;  
Soft lines of tranquil thought his face fulfil—  
His face at once benign, and proud, and shy.

## News Items

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DR. J. C. ALGUIRE, Athens, Ont., died suddenly March 3rd.

THE annual meeting of the Manitoba Medical Association will be held in Winnipeg this year.

THE Legislative Committee of the Quebec Legislature has approved of the Roddick Bill.

DR. R. A. CORBETT, Port Hope, died on the 27th of January. He was in his 75th year.

DR. TAYLOR, of St. Catharines, Ont., died the 13th of February, of pneumonia.

DR. WALTER S. VERRALL, late House Physician at the Toronto Orthopedic Hospital, has commenced practice in Phoenix, B.C.

DR. A. S. MOORHEAD, late House Surgeon Toronto General Hospital, has been successful in becoming a Fellow of the Royal College of Surgeons.

DR. J. W. S. McCULLOUGH, Secretary of the Ontario Board of Health, recently lectured before the medical body of Queen's University.

THE Medical Faculty of McGill University will consider the best means of perpetuating the memory of the late Lord Lister. The matter is in the hands of Drs. T. G. Roddick and F. J. Shepherd.

DR. GEO. E. ARMSTRONG, Montreal, was lately operated on by Dr. W. J. Mayo, Rochester, Minn. His many friends in the profession in Canada will hope for a speedy and complete recovery.

DR. C. H. BRITTON, East Toronto, died recently after a lingering illness. The late Dr. Britton was highly esteemed in the profession. He was a brother of Dr. Wm. Britton, Toronto, a past president of the Ontario Medical Association.

THE Ontario Medical Association will meet in Toronto, May 21st, 22nd and 23rd, 1912, under the presidency of Dr. Herbert A. Bruce. Dr. Graham Chambers is Chairman of Committee on Papers and Business; Dr. J. T. Fotheringham, Committee on Arrangements; Dr. A. Primrose, Chairman of Surgical Section; Dr. W. P. Caven, Chairman of Medical Section; Dr. Geoffrey Boyd, Eye, Ear, Nose

and Throat; Dr. Fred. Fenton, Obstetrics and Diseases of Women. The Secretary, Dr. F. Arnold Clarkson, 471 College St., will be glad to furnish information of this meeting.

**MONTREAL GENERAL HOSPITAL.**—The work in this institution increased remarkably during the last year, and there was a deficit of \$25,168.55. The income was \$138,000. The expenditure increased by \$10,000. The salaries paid amounted to \$8,600. With the new addition it will take \$200,000 per annum to run this institution. The indoor patients in 1911 totalled 4,146, an increase of 560. In the outdoor departments there was an increase of 1,004 consultations. The mortality of the hospital was 303. Dr. F. J. Finley was re-elected Secretary.

**MONTREAL'S DEATH RATE IN 1911.**—The death rate in Montreal has been decreasing in the past three years. In 1911 the rate per 1,000 of the population was 21.39; in 1910, 22.40; in 1909, 22.95. The death rate amongst infants in 1911 was less than in former years, but it still remains high. The rate per 1,000 in 1911 was 53.69; in 1910, it was 54.19. One-half of the deaths were in children under five years of age. Comparing the death rate with other large cities, Montreal is only exceeded by Madrid, whose rate was 27.2. London, Eng., had a rate of 15.1; Paris, 18.6; New York, 18.9; Berlin, 14.8.

**INTERNATIONAL MEDICAL CONGRESS.**—Recent communications from London, England, indicate that the XVIIth International Congress of Medicine to be held there in August, 1913, is to be of great scientific and Imperial importance. We have mentioned before that it was the intention of the President to give representation of the profession in the Overseas Dominions on the Committees of the Congress and the various Sections. We are now in a position to state that the President desiring to pay the Canadian profession a compliment has allotted two places on the British Executive and six places on the British Organizing Committee. In addition Canadians have been selected as Vice-Presidents of several of the more important sections, as well as placed on the councils of the various sections; altogether over fifty members of the profession in Canada will be thus officially associated with the Congress. There is no doubt that it is owing to the sympathetic attitude of the President, Sir Thomas Barlow, the Honorary Secretary, Dr. W. P. Herringham, and the President of the Section in Medicine, Sir Wm. Osler, that such representation has been given to Canada. The Canadian National Committee is composed of the Deans of five medical faculties, namely, Dr. C. K. Clarke,



Dean of the Medical Faculty, University of Toronto; Dr. J. C. Connell, Dean of the Medical Faculty, Queen's University; Dr. H. H. Chown, Dean of the Medical Faculty, Manitoba University; Dr. E. P. Lachapelle, Dean of the Medical Faculty, Laval University; F. J. Shepherd, Dean of the Medical Faculty, McGill University, and three who have held office in the Canadian Medical Association, Dr. George Armstrong, Montreal, and Drs. A. McPhedran and W. H. B. Aikins, Toronto.

CANADIAN HOSPITAL ASSOCIATION.—The next meeting of the Canadian Hospital Association will be held in the Parliament Buildings, Toronto, on Thursday, Friday and Saturday, April 4th, 5th and 6th. Dr. H. A. Boyce, Superintendent of the General Hospital, Kingston, is President, and will deliver the annual address. The meeting on Thursday evening, April 4th, 8 p.m., will be open to the public, and addressed by Mr. Monro Greer, representing the General Hospital, Niagara Falls, Ontario; Dr. Helen MacMurchy, of Toronto, and Dr. Edward Stevens, Hospital Architect and Specialist, of Boston, Mass. Dr. MacMurchy will deal with the subject, "The Relation of the Public to the Hospital." Dr. Stevens will give an illustrated address on "What the Home Can Learn from the Hospital in Regard to Construction." On Good Friday a Round Table Conference and Question Drawer will be conducted by Dr. Bruce Smith, Inspector of Hospitals for Ontario. A special exhibit of hospital apparatus and devices will be made, the uses of which will be explained by Dr. W. J. Dobbie, Physician-in-Chief of the Weston Sanatorium for Consumptives. Mr. W. W. Kenny, Superintendent of the Royal Victoria Hospital, Halifax, will present a paper on "Hospital Maintenance." Dr. E. H. Young, Assistant Superintendent of the Rockwood Hospital for Insane, Kingston, will give an address on "The Hospitalization of Asylums." Dr. J. N. E. Brown will read a paper on "European and American Hospitals Contrasted." Mr. H. E. Webster, Superintendent of the Royal Victoria Hospital, Montreal, will give a paper on the "Construction of Small Hospitals." Mr. J. S. Parke, General Manager of the General Hospital, Montreal, will present a paper on "Hospital Annual Reports." Dr. James Third, Professor of Medicine in Queen's University, will deal with the question, "The Hospital from the Physician's Standpoint." Dr. Theodore MacLure, Superintendent of the Solway Hospital, Michigan, will read a paper, "Problems in the Management of Small Hospitals." Dr. C. K. Clarke and other prominent hospital workers will also present papers, among which will be one on "Hospital Housekeeping." The leading feature of the Saturday morning session will be an address by Miss Charlotte

Aikens, one of the foremost hospital workers on the continent. The subject of her address will be "Hospital Publicity Methods, Wise and Unwise." Hospital Trustees and Superintendents are eligible for membership. The question of Amalgamation with the Association of Training School Superintendents will be discussed. Members and all other persons interested in hospital work wishing to attend will be able to take advantage of the Easter reduced railway rates, and a large attendance is looked for from all parts of the Dominion. A number of hospital boards are arranging to pay the railway expenses of their superintendents in order to have their hospitals represented at the meeting.

ST. JOHN AMBULANCE BRIGADE IN CANADA.—There has recently been formed in Toronto a Division of the St. John Ambulance Brigade, and as the institution of this movement in Canada is of considerable interest to the members of the medical profession, a few words as to the origin of the Brigade will not be out of place. The Order of St. John of Jerusalem, to which the St. John Ambulance Association and Brigade owe their allegiance, is the modern scion of the early Knights, who in the days of the pilgrimage to Jerusalem, banded themselves together to relieve the distress and suffering which was rife amongst the religious converts who formed the ranks of these pilgrimages. As early as A.D. 1099, the merchants of Amalfi organized to relieve sufferers amongst the pilgrims, and for this purpose formed hospitals in which to receive and treat these cases. In the year A.D. 1118 Baldwin II, the then King of Jerusalem, gave the members of the original Brotherhood military status, and under their new name the members were divided into three classes, known as Knights of Justice, the Conventual Chaplains and Priests of Obedience, and those of the lower grades of society were known as the Honorary Serving Brethren. After many struggles, in which blood was shed, covering many years, the Order was driven from Jerusalem and established themselves in Malta, but were later ordered to disband, and their property was confiscated by King Henry VIII, later being revived by Queen Mary to be again disbanded by Queen Elizabeth. The Order had, however, continued to meet in secret, and in the reign of Queen Victoria, application was made to Parliament for a charter to reorganize the Order, and the necessary permission was obtained, the reigning Sovereign to be the Sovereign Head of the Order, and the Prince of Wales, the Grand Prior. From the Order was formed the St. John Ambulance Association in the year 1888, the aim of the Association being to give general instruction in the care of the sick and injured, and under its banner some hundreds of thousands have taken the course

of lectures and obtained the certificate of qualification. Some years later the St. John Ambulance Brigade was formed to give those who had qualified an opportunity to practice their knowledge, and it was speedily seen that much good might be derived from having these men and women organized into a semi-military body, to give assistance wherever their services could be of use. To this end the Brigade was uniformed and drilled, and now there is no public function in London at which crowds are gathered, where there is not also detachments of the Brigade ready to deal with any case of emergency. On Coronation Progress Day, 1911, over 10,000 cases were treated along the route of the procession, by members of the Brigade. The work grew in popularity, and as a result, there are over 100,000 members within the ranks throughout the British Empire. Canada has not, however, until recently founded this movement, but since its inception in 1911, members have continued to pour into the Corps. The arrival of H. R. H. the Duke of Connaught, who is Grand Prior of the Order, should give an immense impetus to the work, and it is expected that this year will see a great expansion of the knowledge taught. Dr. C. J. Copp is the Honorary Secretary of the Ontario Executive Council of the St. John Ambulance Association, whilst Superintendent G. R. N. Collins, of Orchard View Hospital, is the Organizer and Corps Superintendent of the Ambulance Brigade. The work is one in which the medical profession may render assistance, by organizing classes for instruction in their districts, and for this service, certificates of honor are granted, while fees may be collected if so desired. Either of the above gentlemen will be glad to furnish details when asked, and will welcome the assistance of the members of the profession at all times. His Majesty King George, has graciously consented to review the St. John Ambulance Brigade at Windsor Park during the spring, and for this purpose twenty members of the Toronto Contingent will leave for England to represent Canada in May. His Majesty the King and H. R. H. the Duke of Connaught both take a keen and active interest in the advance of the work, and H. R. H. the Duchess of Connaught is the holder of the five certificates issued by the Association.

## Publishers' Department

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Face massage, scalp treatments, body massage, needle sprays, colored light baths and electrical massage are now essentially required as efficient adjuncts to the medical man's armamentarium. Where experience and skill in administering such treatments are assured, it is very satisfactory to the practitioner who has to refer cases for treatment under special supervision to know such will be conducted efficiently and intelligently. Toronto or out-of-town medical men will know that well-appointed parlors and sun room have quite recently been opened in the city. These are in charge of and under the personal supervision of Mrs. Neil MacKinnon, late of Scotland. The institution is conveniently and centrally located at 20 Walmer Road.

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A FINE LINE OF STERILIZED SOLUTIONS.—Hermetically sealed glass ampoules containing sterilized solutions of important drugs for hypodermic use have assumed a commanding place in medicine in a comparatively short period of time. Two or three years ago, seeing the tendency in this direction, Parke, Davis & Co. brought out a modest line of something like a half-dozen formulas, notable among them being solutions of Adrenalin, Codrenin and Cacodylate of Sodium. From this small beginning the line has expanded until now the company announces a total of about twenty distinct formulas. The full list, we understand, is now appearing in display advertisements in the leading medical journals of the country. Physicians who are interested in this advance in hypodermic medication—and every physician ought to be—will do well to search out these advertisements and familiarize themselves with the comprehensive line of solutions therein offered. Solutions provided by the glaseptic ampoule, it is obvious, have several advantages over those prepared in the ordinary manner. They are ready for immediate use: there is no necessity to wait until water can be sterilized and cooled. Accuracy of dose is ensured, each ampoule containing a definite quantity of medicament. The solutions are aseptic; they are permanent.

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BRAND'S BEEF TEA TABLETS.—Another form of the Concentrated Beef Tea, most valuable to travellers, as they are so easily carried and simply need to be dissolved in a breakfast cup with