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## *Original Contributions.*

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### THE COUNTRY DOCTOR.\*

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*Ladies and Gentlemen*,—Possibly it was a kindly regard for my health that prompted the officers of your Society to extend to me an invitation to address you this evening. They may have been thinking with a certain Western poet that

“When a fellow has a story that he thinks he ought to tell,  
If he does not get to tell it, why, of course, he don't feel well.”

I alone from the large faculty of this College can look back upon ten years of life as a country doctor. But it is not the story of that decade—not my own story—that I propose to tell you. Rather, it is that of my brothers and comrades, men whose lives I have been watching, lo! these many years.

My personal experience might teach you less than that of others, since I had the good fortune to succeed to an established practice, and so missed the heart-breaking wait and the long up-hill struggle that marks the earlier periods of many a doctor's life.

The theme you have given me is one that might well arouse to eloquence even a member of the silent profession. As when the sun in early morning tips with radiance the trodden snow, so could I wish for the white light of potent words with which to bring out the lights and shadows of that high vocation to which the country doctor is called; but, conscious of the greatness of my subject, and of my own limitations, I ask in advance your indulgent consideration, recalling the words of that old professor of rhetoric who, to a

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\* An address first given to the students of Trinity Medical College in 1890 and repeated by request before the Medical Society of the University of Toronto, Dec. 1907.

student before him for trial, said, "Sir, your time is five minutes—your subject the immortality of the soul." How shall we begin the study of the country doctor? The painter, the poet and the novelist can aid us, and for a few minutes I may accept their aid, but in the main I must try to portray him for you as I have seen and known him, off guard and in his own environment.

We may ask the poet about our subject, and from England, with apologies to Kipling, comes this answer:

"As I was goin' 'ome to bed, through a muddy, country lane,  
I seen a man in a oilskin cape, atrudgin' through the rain,  
'E 'adn't a match, an' 's pipe was out, an' I ses to im, 'Oo are  
you?'  
An' 'e ses, 'I'm a doctor, the country doctor, surgeon an' midwife  
too!'  
Now 'e never gets paid for 'arf 'e does, an' 'e does the work of two,  
An' 'e isn't one of the gentlefolks, an' 'e ain't like me nor you,  
E's a sort of a bloomin' chameleotype, surgeon an' midwife too.

"An' I seen 'im again with a knife an' things, and the sweat was on 'is  
brow,  
'E was trying to mend the cuts of a bloke as 'ad spiked 'isself in a  
row;  
'Twas late at night, an' 'e 'adn't no light, to see what 'e 'ad to do,  
An' 'is pal was a doctor, a country doctor, surgeon an' midwife too.  
'E 'adn't got far with 'is little job, 'e wasn't but 'alfway through,  
When the bloke sits up and asks for a drink, the same as it might be  
you;  
Ho! they ain't no special anesthotutes, surgeon and midwife too."

Certain also of your own poets can tell us of him; none better than Dr. Drummond.

"But dere's one man got hees han's full  
T'roo ev'ry kind of wedder,  
An' he's never sure of not'ing but work and work away;  
Dat's de man dey call de doctor, w'en you ketch him on the countree  
An' he's only man I know me don't got no holiday."

The novelist will tell us of William Maclure, and as we read our heads are bowed in thankfulness to *der lieber Gott* for men of that heroic type whom here in our own land we know and love.

"The Guardian Angel" by Holmes, and "The Country Doctor" by Sarah Orne Jewett, give us splendid types, and not less worthy of study is the physician whose life history comes out in the series of books written by one who hides her identity behind the pen-name of "A Commuter's Wife."

You have all seen copies of Luke Fildes' noble picture, "The Doctor."

"On one side stands the world destroyer,—Death,  
And on the other, oh most piteous strife!  
An infant with a rosebud look and breath,  
A baby fighting for its little life."

As I look at it every day, I can find no words to describe the central figure more fitting than those of the Quaker poet:

“A face that a child would climb to kiss,  
Strong and manly, and brave, and just,  
That men may honor, and women trust.”

Well might Sir Mitchell Banks exclaim, “The men that look like that man, whatever be their business or trade or profession, whatever be their wealth or their social position, I say of such men is the kingdom of Heaven.”

A country doctor is a perfected and evolved medical student. Now you know just what a medical student is—at least you think you do, and from your standpoint perhaps you do. From the standpoint of your teachers, he is a rough, warm-hearted, generous, brainy fellow, with energies to be directed, and with boundless possibilities for future usefulness. From the standpoint of a city policeman he is one shade darker than a Nihilist, while from that of a little girl out home—well, you gentlemen who come here with mortgaged affections, know what he is to her. On two points regarding him all will agree. He quickly sees through sham and pretence, and (outside the class-room) he is never at a loss for a timely answer. Let me illustrate this point:

In the earlier history of our College, there were students here, who, being the sons of ministers, felt it their duty to be a little wild in order to restore the balance. It is told of one of these gentlemen that once when “his jag was heavy upon him” he dropped to sleep in a barber’s chair. When the knight of the razor said to him, “If you don’t hold up your head, I can’t shave you,” the reply came quickly, “Then cut my hair.”

And you remember when that church down street took fire and the students all turned out to see it, one of them stated the case in two words, “Holy smoke.”

From raw material such as this the country doctor in our day and generation is evolved. Like the millers, we manufacture some for home consumption, and “grind” the rest in bond for export.

Probably the first physician, surgeon and accoucheur who ever engaged in country practice was the father of our race, Adam Primus. A photograph, the negative of which has unfortunately been lost, represents him giving catnip tea to little Abel, while his wife, Eve, suffering from a sick headache, binds up her throbbing temples with a fig-leaf handkerchief. Ever since Eden was lost the three most constant and universal demands of humanity have been water, food, a doctor.

Now, all who are graduated from our Colleges cannot be surgeons and live in cities. It takes ten thousand people to support

a surgeon, while with one thousand a physician can live and save money. Besides, to get a living practice in a city takes about eight years, in a town, four, and in a village only one or two.

*Scene First.*—And so it comes about that the curtain rises on our graduate as he hangs out his shingle at the cross-roads, and hires a front and a bed room for himself and a stall for his horse. While he is waiting for calls, we will consider his environment and his preparation for the life he is to lead. Around him stretches the country as God made it and as man is trying to improve it. The roads he will soon learn to follow in the dark, as yet know nothing of the improvements suggested by the late Mr. Macadam. They curve and wander in search of the easiest grades, and at times they end in squirrel tracks that run up the trees. The forest primeval borders the clearing on each farm lot, and the houses are of frame or log. Scattered here and there are little villages like the one in which he has located "houses clustering like chicks around the mother's church roof," as Lowell happily puts it. He may have a dozen of such hamlets within what is to be his sphere of influence. His college text-books are his library, a hand satchel is ample for all his instruments, while a shelf or two contains his slender stock of drugs. The money saved from school teaching was just enough to get him through the council, so from his father's farm a horse is spared, or one is bought on a slow note with paternal backing. This steed is not apt to be one that will get up an epidemic of paralysis among those who watch him travel. At first a saddle is bought, later a buckboard and cutter have to be procured. A buggy only puts in an appearance when some of the rocks are off the road, and another kind begin to pile up in the doctor's pocket, replacing the vacuum he has so long harbored there.

*Scene Second*, two years later.—The first novelty of caring for sick folk has worn off, and our doctor is winning his way to the confidence of the community, but of late into his life a new and strange unrest has come. His first diagnosis of his own disease is, "A subacute nostalgia." Very soon the symptoms point in quite another direction. It is not his old home he is longing for, but the new one he is to build. The lights that gleam across the snow from happy firesides make him feel more and more his isolation. His boarding-house loses its attractiveness, and about this time he begins to make certain calls that do not go down on his visiting list. At first he seeks excuse for these, but later he is somehow expected, and he is too thoroughly a gentleman to disappoint a lady. Before very long someone goes driving with him, and sits tucked up in the cutter while he makes his visits. The most widely spread of all maladies is upon him. You gentlemen, who study vital statistics, are well aware that more fall in love than in war. But the doctor does not fall in love. He walks right in with his eyes open, guided

by that instrument of precision, the heart. He does not circle around and backpedal on his affections till all social and monetary advantages are fully considered. He does not need to, for right here his professional advantages show to good account. Lawyers see the worst side of humanity, ministers the best side, while physicians see it just as it is. With his special knowledge of all the girls in the country, and his common sense, it would require positive genius to make a blunder. He makes no mistake, and the very best girl of them all is the one who has by this time agreed to call him "George" instead of "Doctor." With womanly intuition she reads him through and through, and knowing full well that it is a terrible endorsement of a man to marry him, when he speaks she answers as a maiden in the land of the Dakotahs answered Hiawatha, "I will follow you, my husband!" To the physician, overtaxed in mind and body, struggling for his daily bread, and weighed down with the awful responsibilities of his calling, a gentle, loving wife is the greatest of all good gifts. To all fair things she will lend a fairer charm, and from the home she will help him to create will come the purity, the hope and the courage with which from this time on he fights the battle of life. To her will be justly due a full half of his success, and far more than that proportion of all the happiness of his life.

*Scene Third*, ten years later.—And now our doctor is an established and prosperous man. Long ago his new house was built, and if not the best, it is apt to be the most tasteful in the village. You see, he consulted his wife when it was planned. Sancho Panza said, "Women don't know anything, but that man is a fool who don't take their advice." He owns a farm on the Fourth Concession, is Chairman of the School Board, Reeve of the Township, and an Elder in the Church. His political convictions are strong, and his influence widely felt. Sir Wilfrid Laurier, or the Hon. Mr. Whitney—I forget which—has his allegiance, and the party has no better or cleaner adherent. He is known and loved, and trusted and overworked, and pitied by all.

Perhaps he has a few enemies—just enough to enable him to escape the Biblical warning, "Woe unto you when all men speak well of you." His reputation has outrun the limits of an ordinary practice, many have urged him to move into the county town, and he has long thought of doing so. But still he stays, waiting till he can meet with someone into whose keeping he can commit the care of his people, those to whom he has given the best years and the best energies of his life. Before we leave him, let us look at the manner of man he is growing to be. Granting that the personal equation is the chief factor in the result, greater than any help or hindrance, it is still true that the silent forces of his calling, those that ride with him over all roads, that sit with him at all bedsides, that are with him in his downlying and his uprising—all these work upon mind, and heart, and body, making him day by day

a better man or a worse one. He is not perfect. To be perfect, an ideal doctor, he would need to have the wisdom of Solomon, the patience of Job, the strength of Samson, the bravery of Joshua, the eloquence of Paul, the meekness of Moses, the faithfulness of Abraham, the charity of Dorcas, and the executive ability of Jezebel. He would have to hunt like Nimrod, fish like Peter, climb like Zaccheus, and drive like Jehu. He would have to keep clear of the gout of Asa, the melancholia of Saul, the gastric infelicity of Timothy, and would still fall short of perfection if he had not the tireless perseverance of the devil himself. Still, he is worth our study, for in scattered settlements over all this greater half of the continent you will find his counterpart, and to some of you gentlemen it will soon be given to live a life like his, and work out a similar destiny.

What of that life, its mirth and its misery, its hopes and its aspirations, its disappointments and its rewards? First, above all, it is a life of unconscious bravery, of devotion to duty, and of the sacrifice of self for the good of others. On what higher plane can any life be lived? "It is only," wrote Goethe, "with self-renunciation that we begin to live." He may not preach the truth, but he lives it, and that is a thousand times better. Perhaps he is not the most regular of church-goers, but

"He who serves his brother's needs,  
Whose prayers are spelled in loving deeds,  
May trust the Lord will count his beads  
As well as human fingers."

The very nature of his work lifts him towards the ideal. Do I claim too much for it in saying that it is the real spirit of Christianity in action?

"It knows no meaner strife,  
Than art's long conflict with the foes of life."

Ruskin teaches us the dignity of service, Dickens the divinity of kindness, George Eliot the supremacy of duty, Browning the splendid optimism that comes from unfaltering trust in God, and Lowell the need to give ourselves to others if we would truly help them. All these we find mingled in and making up the life of the ideal country doctor.

If to live and labor and suffer for others, rising above self and selfish ends, is to live truly, then, reverently be it said, he is following with a guidance that he dares not claim, in the footsteps of that one Physician who knew all the truth, and who was and is our Lord and our Divine Exemplar. "Ever since from lips that spake as never man spake came the blessed words that gave to sightless eyes a vision of the blessed sunlight, to ears that had known no sound, the music of birds and of the human voice, that restored strength to withered limbs, and brought back life itself to a frame it had for-

saken, the healing art has been Christlike and holy." Its charities many and often are, of that diviner quality taught by Him who gave himself for others.

The bravery his calling develops is that rare quality which Napoleon called "Two-o'clock-in-the-morning courage." It is an easy thing to be brave before a cloud of witnesses, but not so easy when the fight is a losing one and God alone is watching the struggle. Fire broke out one night in a city tenement, and in an upper window a child was seen. Quickly the ladders were run up, and a fireman mounted to save her, but before he reached the top the flames and smoke were upon him. He hesitated and began to drop back. Then one in the crowd cried, "Cheer him!" and from the multitude went up a shout that told of sympathy with him and the life to be saved or lost. Once more he dashed at the flame, went through it, and came back with the little one safe in his arms. No such encouragement comes to the physician, when in some lonely tenement at night he receives his baptism of fire; but from that trial he comes forth in stronger, purer manhood, and never after doubts but that he is divinely ordained to be a minister of help, of comfort, and of consolation unto those who are appointed to suffer. It will be his to "scatter the charities that soothe and bless and save." The devotion to duty that guides him now is the selfsame principle that moved the ten thousand at Marathon, and the three hundred at Thermopylae, that steadied the thin, red line at Inkerman, that rode into the valley with the Light Brigade, that rushed the trenches of Cronje at Paardeberg, and that gave to us Canadians the heroic memories of Wolfe, of Brock, and of the Jesuit martyrs at the North Shore Huron missions. I could tell you of one who with a lung half solid with pneumonia struggled through night and sleet to be with a patient and guard her from the dangers that threatened in the hour of her motherhood's advent, and of others who charged the banks of snow on blocked and drifted roads, as a soldier might charge a rampart, and whom nothing could stop or even stay when duty called. But why should I? We all know that Canada has many Grenfells and Maclures, but so far few Ian MacLachlans to tell of their deeds of quiet heroism. Perhaps it is best so! Our profession would be the last to claim any monopoly of the manly qualities developed upon the campus.

"The sands of the desert are sodden red,  
Red with the wreck of a square that broke,  
The Maxims jammed and the Colonel dead,  
And the regiment blind with dust and smoke;  
The river of death has brimmed its banks,  
And England far and Honor,—a name.  
But the voice of a school-boy rallies the ranks,  
'Play up! Play up! and play the game.'"

The country doctor is no quitter. He plays the game, not simply while the light lasts, but through all the hours of darkness till the shadows flee away and hope revives.

He is the best friend a community can have. He is the confidant of lovers, and helps to make up their quarrels. He brings together again the husband and wife whom differences have separated. He is father confessor to half the country and keeps his trust with knightly honour. His sympathy is deep and genuine, and is not worn upon his coat sleeve. No one more than himself feels contempt for a "gusher" in or out of his profession. In every calling you find them.

After a consultation an old Quaker lady once said, "Thee will do me the favor not to bring that man again; thee knows I don't like to have my feelings poulticed." Legal persons

"Trained in every art  
To make the worse appear the better part,"

use sympathy at \$100 per day to sway juries. Clergymen sometimes overuse it. An evangelist at one time got into the habit of calling his audiences "Dear souls." Laboring in Ireland, he used to say with effect, "Dear Belfast souls," "Dear Dublin souls," but when he said "Dear Cork souls" it did not seem quite so appropriate.

The sympathy of the physician is expressed, not in weeping with those who weep, but in devising relief for those who suffer in heart, or mind, or body. Far from being blunted by long contact with pain, his sympathy grows keener with each year of added experience.

The old farmer in the Gospel according to Whitcomb Riley says,

"Doc, you 'pear so spry, jes' write me that receipt  
You have fer bein' happy by,—fer that'd shorely beat  
Your medicine," says I. And quick as sent Doc turned and writ  
And handed me, "Go he'p the sick, and put your heart in it."

The glory of optimism pervades his life. Tell him of Max Nordau's statement that our age is stamped with the stigmata of degeneration and he will laugh you to scorn. In his world he knows that this is not true, and he has no manner of doubt but that

"Love lights more fires than hate extinguishes,  
And men grow better as the world grows old."

Into every sickroom he carries the inspiration of a cheery, hopeful presence. Fortunately he finds lots and lots of the kindest humor even in that world of pain and sickness in which he dwells. He is apt to believe that if the good Lord had not meant we should be mirthful, He would never let so many funny things happen. Father Faber once said, "There is no greater help to a religious life than a keen sense of the ludicrous." Such a divine gift softens the



asperities of life and lessens the annoyances of practice. As anatomists you know how close to the fountain of tears are to be found the ripples of laughter that run around the eyes. So sorrow and mirth go close linked all through life. A messenger calls when he is out and says, "I got some medishin from the Doctor, and I want to insult him about it." Is it a case of sciatica? The old man says that "a ball of hot wind keeps running from his hinch to his hock." And the Irish woman who wishes to save his feelings and cannot report improvement, says, "Doctor, I have given little Patsy all your medicine, and he is no worse thin."

Night-calls and bad roads have long been recognized as chief factors in a country doctor's misery. When worn out and half sick, a call at bedtime or later comes with a sense of personal affront, and its bearer is looked upon as one far gone from original righteousness. Whitecomb Riley knew of this when he wrote:

"May be dead of winter,—makes no odds to Doc,  
He's got to face the weather ef it takes the hide off,  
'Cause he'll not lie out of goin' and P'etend he's sick hisse'f like  
some  
'At I could name 'at folks might send for and they'd never come.'"

We know (but others do not) that the really necessary calls that a physician receives would hardly suffice to keep up his horses. Besides that, it is the dead beats who are most imperative, and most untimely in their calls, and who take care to know nothing of the symptoms, lest medicine be sent and the visit be deferred until the morning. You are wanted "Just as quick as you can get there," and when you do get there the "black diphthery" is a follicular tonsillitis, or the "erysipelas" is a nettle rash. There was a prophet in the land of Uz who sat patient and self-poised as the messengers with evil tidings came to him thick and fast. Either we are not his lineal descendants, or this old patriarch failed to transmit to us the secret of his calm philosophy. When such calls come, the country doctor does not always appear to the best advantage before his family, as he starts out on the road. But starlight, and let me whisper, a quiet smoke, are capital sedatives, and long before the patient's house is reached, the ruffled temper is smooth again, and the instinct of helpfulness dominates him.

If the Litany could be lengthened to read

"From country roads in spring and fall,  
Good Lord, deliver us all,"

physicians might attend church more regularly, and would join with fervor in this part of the service, if in no other. Of such a highway Mark Twain once wrote that if he ever went to the place of eternal torment, he wanted to go over that road, as then he would be glad when he got to his destination! Oh, the mud, the unutter-

able, bottomless, clinging mud, the—the—but I cannot speak of this subject with composure. Its memories are too painful and overcome me.

Better far the drifts of winter that can only be climbed on snowshoes before being shovelled out and broken for teams, than the axle-deep and glue-like mud that sticks to my memory in dreams as it used to stick to the feet of my horses and all but pull their shoes off.

More than any other, the country doctor is a man who does his own thinking. "In this world," said the greatest of German writers, "there are few voices and many echoes." City-bred physicians lean on each other and quote precedents and authorities as glibly as lawyers do. Few men really think. Many think they are thinking, but all have opinions. You had them early in life! Your first opinion probably was that you were sorry that you had come here. Next you held, perhaps vaguely, that if dinner wasn't ready, it ought to be. I have met city physicians who reasoned about as profoundly as you did then, who would seize upon a single symptom and shut their eyes to everything else, but who have been getting along fairly well in practice. In the country they would have failed miserably. Ignorance, like crime, naturally hides in cities. Country practice offers no *asylum ignorantium*. The doctor there goes right to the front to be known and read of all men, and what is more important, of all women. The people among whom he dwells belong to the great middle class, intelligent people, capable of forming correct judgments. Before such judges he stands, and he can shirk no responsibility since sharp eyes follow him everywhere, observing and discerning what manner of man he is. Trained by the life he leads, he gains self-reliance, presence of mind, fertility of resource and sagacity, and thus becomes a self-contained man, capable, skilful, and safe. To him a consultation is always something like a confession of failure and a downfall of pride. To this class belonged Jenner and Sims, McDowell and Robert Koch, with countless others—grand men who saw the distant tops of thought which men of common stature never see. He is charged with being at times a "routinist" and a one-idea, or a one-sided man. If he has but one idea, it is his own, and he is that much ahead of quite a few other people. Remember also that one-sided men make our only aggressive leaders. Once more, to quote from the Hoosier poet,

"And it was given us to see beneath his rustic rind  
A native force and mastery of such inspiring kind  
That half unconsciously we made obeisance."

He may give less attention than his city brother to dress—may even at times be as unkempt as a yearling colt with the

run of the burr pasture, but by intuition, that is, by the working of the unconscious mind, he grasps the essential facts that success in gaining and holding practice is less a matter of therapeutics than of fact; that the patient has a right to his whole-hearted attention, and that whenever it is at all possible, he must thoroughly understand the case and take a hopeful view of it.

Such the work. Now, what of its rewards? In ten years of hard work a very large sum can be accumulated—on one's ledger. What shall it profit a man if he has an account against every man in the country and cannot collect a cent? For your encouragement, let me tell you that from 75 to 90 per cent. of money earned in the country is good, or will be some day—after threshing, perhaps, or in the spring. While with health a modest competency is assured, there is absolute security from any sudden attack of affluence.

But there are rewards which come in daily and are not to be expressed with the dollar sign before them.

“A poor man served by thee shall make thee rich;  
A sick man helped by thee shall make thee stroug;  
Thou shalt be helped by every sense of service which thou renderest.”

It may be yours to feel the happiness of the patriarch of old. “The blessing of him that was ready to perish came upon me, and I caused the widow's heart to sing for joy.”

Having tried to outline the campaign of this undecorated soldier from the time when first the *Reveille* aroused him to action, now, before the bugle note of the last call “Lights Out!” is heard, let us ask as to his final reward. Our question goes to those who have attained the prize. List while they speak:

“In life's uneven road  
Our willing hands have eased our brother's load;  
One forehead smoothed, one pang of torture less,  
One peaceful hour a sufferer's couch to bless;  
The smile brought back to fever's parching lips,  
The light restored to reason in eclipse,  
Life's treasure rescued like a burning brand  
Snatched from the dread destroyer's wasteful hand—

“Such were our simple records, day by day  
For gains like these we wore our lives away.  
In toilsome paths our daily bread we sought,  
But bread from heaven attending angels brought.  
Pain was our teacher speaking to the heart,  
Mother of pity, nurse of pitying art;  
Our lesson learned, we reached the peaceful shore  
Where the pale sufferer asks our aid no more—  
These gracious words our welcome, our reward—  
‘Ye served your brothers, ye have served your Lord.’”

## THE UNBALANCED FOOT.\*

BY B. E. M'KENZIE, B.A., M.D., TORONTO,  
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PROBABLY the most common cause of lameness is a foot that is without normal balance. In order to perform its function efficiently and with comfort to its owner the foot should come fully under the superimposed weight of the body and should have sufficient strength to maintain its proper balance when the weight of the body and the force of propulsion fall upon it.

The foot normally presents three arches. The longitudinal one has a single pier behind and a pier in front consisting of five divisions, the first and fifth of which receive the most of the down-



FIG. 1.

ward pressure. The second arch is a transverse one beneath these five divisions, and, therefore, supported at the inner and outer borders of the foot. In an ideal condition the heads of the intermediate metatarsal bones ought not to press upon the ground. The third arch is in many respects the most important one, and is incomplete, when considered in its relation to either foot alone. It is a half arch, having its outer support at the outer border of the foot, while the inner termination of this half arch is found at the inner border; hence the arch is complete only when the two feet are brought together, and the arch passes, therefore, from the outer border of one foot to the corresponding part of the other. The inner portion of each half arch being unsupported, it will be seen that when standing upon one foot the body weight will tend to lower the inner or unsupported portion of this half arch. In other words, there is a tendency even in the normal foot to roll

\* A clinical lecture delivered at the Toronto Orthopedic Hospital, Nov. 2, 1907.

inward, bringing the inner malleolus and the inner border of the foot nearer to the ground than when the weight is borne normally upon both feet.

Nature did not make any mistake in the fact that the foot thus tends to roll over towards its inner border, a condition which, when present in abnormal degree constitutes one of the important elements in the weak or flat foot. Balance is maintained in the normal condition by a group of muscles passing behind the inner malleolus and in front of it to the inner border and the under surface of the foot, which is stronger than the group of muscles pulling upward at the outer border of the foot. In this way a comfortable balance is maintained, while greater elasticity is secured than would be the case if the foot were evenly balanced



FIG. 2.

without reference to the muscular action. This condition points to an interesting indication for treatment in the weak foot, which is to educate the individual so as to develop and strengthen the inner group of muscles and to cultivate a habit of holding the foot well inward in practice, so as not to allow it to roll into a position of pronation. The pronated foot is a weak foot, and that condition is favored by indifference, bad training, high heels, and narrow boots, etc.

It is possible, also, that the foot, from various causes, may maintain such a position as to be moved too far toward the median line, thus allowing the transmitted weight to fall too much toward the outer border and have a tendency to roll the foot over outward. In feet that are in a general way regarded as normal the former condition is very much more common than the latter.

In a similar manner, if for any reason, from paralysis or

otherwise, the anterior group of muscles at the ankle is not in a position to balance fairly the posterior group, the heel will eventually be drawn upward beyond its normal position and so maintained. This condition is seldom seen except in the ordinary club foot or as a result of paralysis, and is known as a condition of equinus.

Finally, in paralysis, and very seldom resulting from any

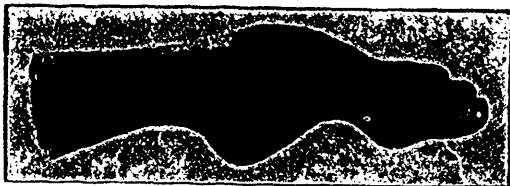


FIG. 3.

other cause, the posterior group of muscles may be so weak that their antagonists at the front of the ankle draw the anterior portion of the foot upward and the heel points abnormally downward—calcaneus.

There is an ideal position of balance for the foot, such a position as one may not be able to demonstrate with exactitude; but



FIG. 4.

for each individual there is such a position which affords the greatest degree of sustaining power for the body weight. Any departure from this ideal position means a pathological state to a greater or less degree, and may be in the direction of any one of the four conditions named above. It is true that there must be a considerable margin of deviation allowed in all directions while yet the foot shall be considered normal in position. One most

important cause for the lack of balance above referred to, and seemingly one of increasing frequency, is infantile spinal paralysis, or acute anterior poliomyelitis. A characteristic of this affection is its uneven distribution. The primary pathological lesion is in the anterior column of the chord, but in its manifestations in the muscles, for example, which control the ankle, it may affect only one group, as, for example, the group at the internal border, in which case there will result a pronated foot (fig. 1 and fig. 2), one variety of the weak foot; or it may result in a complete or partial paralysis of the peronei, when the foot will roll over toward its outer border, giving us a supinated foot (left foot, fig. 2). In a similar way, if the anterior group chiefly be affected, the posterior may so draw the foot as to give a condition of



FIG. 5.

equinus; or a complete or partial paralysis of the calf muscles may give us a condition of calcaneus (fig. 3 and fig. 4).

The illustrations in this article will show the varieties here referred to as resulting from infantile spinal paralysis. The indication for treatment is to restore balance. Little can be done by art in the way of improving the condition of the muscles disabled through the disease referred to, but if a group of muscles is pulling the foot strongly in one direction, as, for example, inward, it would certainly assist in restoring balance if a tendon, which is so inserted as to pull inward ordinarily be transferred and inserted at the outer border, thus lessening the inward pulling force and increasing that which draws the foot outward.

More than twenty years ago Nicoladoni proposed this plan of operation, and it has been more or less carried out in practice, especially during the last fifteen years. It is a very attractive plan of operation, and has produced good results, but less success-

ful than was expected. Wherever there are muscles whose joint action draws the limb unduly in one direction, some one or more of their number may be changed by detaching it from its bony insertion and transferring it to such a position as will give it the best mechanical advantage pulling in the opposite direction.

Another important means, if used soon after the onset of the disease, before muscular contractures have resulted, is found in the wearing of a brace at night, such as will hold the foot in a normal position. It will readily be seen that while lying in bed the anterior part of the foot is carried downward by the weight of the bed-clothing, and hence if there is a disposition to permanent contracture of the calf muscles this will be prevented by the brace just referred to.

Also, boots may be so built as to have a tendency to prevent



FIG. 6.

the foot from rolling either inward or outward into an abnormal position. The sole of the boot in the one case should be made wider and thicker at its inner border, and should be so shaped as to make the inner border of the boot markedly concave. If the foot, however, tends to roll toward its outer border, the boots should be so built as to make the sole wider and thicker at its outer border, and so shaped as to divert outward the anterior part of the foot.

Such means as just referred to will be satisfactory only in the milder cases. Where there is marked deformity at the mid-tarsal joint, either turning the anterior part of the foot very strongly inward, outward or downward, operative measures should be adopted. When there is great out-turning of the anterior part of the foot in its relation to the hinder portion, known as a con-



dition of valgus, removal of the scaphoid and of the articular surfaces, which will then be brought into contact, with a view of obtaining bony ankylosis, proves a highly satisfactory operation, thus shortening the internal border and strengthening the arch. A similar operation may be done by removing a wedge of bone from the outer border of the foot at the medio-tarsal joint and carrying the anterior part of the foot outward so as to close up the gap in cases where the varus is strongly marked.

In a smaller proportion of cases there is complete paralysis, or very nearly so, of the muscles which move the foot, constituting what is called a "flail foot." In such a case excision of the ankle joint is a most satisfactory operation. It is best performed by making a horseshoe-shaped incision, with the opening upward and its middle below the outer malleolus, and then turning the foot inward so as to fully expose the ankle joint, removing



FIG. 7.

very freely the articular surfaces so as to obtain red bone in as large a quantity as possible, accurately adjusting the surfaces and bringing the foot back so as to get good apposition between the astragalus below and the tibia and fibula above. It is highly desirable that there shall be a strong and extensive bony union. The writer finds himself performing these excisions at the various joints of the foot more and more frequently as the years pass by, because the results have proved highly satisfactory.

In a foot which is disabled because of paralysis there are two elements causing the disability: first, the paralysis *per se*; and second the deformity, or lack of balance, or the flail foot. The first of these cannot be greatly modified by any known means; the latter is best treated by surgical means.

When the arch of the foot has become unduly high—talipes arenatus—there is frequently great discomfort to the patient, because the weight thrown upon the heads of the metatarsal bones causes an extensive development of callus which becomes very

painful. In such a case great improvement will promptly result by cutting the plantar fascia and ligaments, straightening out the foot, and adopting measures to prevent its recurrence. The tenotome is passed in behind the artery until it reaches the under surface of the anterior portion of the os calcis, where free section may be made of the plantar ligaments and fascia. The club foot wrench (fig. 5) may then be employed, even in the strongest feet, to raise the anterior portion of the foot, thereby causing it to become longer to the extent of one inch or more. This condition cannot be maintained except by the use of well-constructed boots and night braces referred to above.

Traumatism is a frequent cause of lack of balance at the ankle. A comparatively frequent mishap after Pott's fracture results from union of the broken parts in such a way as to have



FIG. 8.

the foot placed too far outward, so that the body-weight falls unduly upon the inner border, causing traumatic flat foot. This condition commonly demands osteotomy in order to replace the foot. A brace and boot specially constructed may be employed, but are less satisfactory than a radical operation.

As a result of fracture at the ankle, much less frequently, the foot is placed too far inward. Osteotomy and replacement are the most effectual remedy. The canthook wrench (fig. 6) is a powerful aid in replacing the foot in the cases just described.

Falls from a height and other irregular injuries frequently produce fractures of foot bones resulting after union in disturbance of balance, which causes much disability.

Another instance of greatly unbalanced foot is shown in Fig. 7. The right tibia was cut through near its lower end by the

knife of a mowing machine in such a manner that the epiphysial cartilage was destroyed. Satisfactory recovery, except that the tibia did not grow at its lower end afterward, and consequently the fibula became of greater relative length and caused the foot to be carried much inward from the proper line of transmitted body weight.

Osteotomy of tibia and ablation of the lower epiphysial cartilage of the fibula, followed by replacement of the foot, were required, resulting as seen in Fig. 7.

To sum up the general trend of this lecture, one may say:

1. That a lack of balance, so that the foot is not maintained directly under the body weight, is an important, if not the chief, cause of discomfort and disability in walking.



FIG. 9.

2. That in the slighter cases balance may be restored by the use of properly constructed boots and braces.

3. That, in young persons especially education and development of the muscles is an important factor in treatment.

4. That tendon transposition to restore balance as indicated is fairly satisfactory in its results.

5. That excision at the joint where indicated has proved itself a highly satisfactory method of treatment.

6. That osteotomy is frequently necessary.

7. That a properly designed night brace is important to prevent deformity.

8. That in all cases the great essential is to place and maintain the foot evenly and directly under the body weight.

**ADDRESS DELIVERED TO THE 1907 GRADUATING CLASS  
OF NURSES, THE HOSPITAL FOR SICK  
CHILDREN, TORONTO.**

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BY ALLEN BAINES, M.D., C.M., L.R.C.P. (LOND.),  
Physician to the Hospital.

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ADDRESSES containing words of kindly advice to the graduating class have been given for so many years, that one has to run the risk of unintentional plagiarism, for the lines to be followed remain the same in each case.

The first word must be one of hearty congratulation, first to the graduating class for the highly satisfactory manner in which they have finished their course, and also to Miss Brent and to her assistant staff, through whose instrumentality this successful course has been run.

We indeed have all to thank our Lady-Superintendent, who, in addition to valuable experience gained in her own excellent training, and to her great ability and capacity for imparting that which she knows, is possessed of a rare organizing power, which has clearly shown itself in her choice of lady assistants and nurses. With such good primary working material, and with a curriculum embracing every subject necessary to the moulding of a well-trained and educated nurse, it would be strange indeed if our graduates were not of a very high order. Of one thing I feel sure with regard to those whom I am addressing: wherever they go, and however many years may pass without their being able to reunite as a body, they will always look back with deep affection upon this hospital as their Alma Mater, and will also hold in love and reverence, as we all do, our deeply esteemed chairman, whose great heart and mind have added to many previous acts of generosity this latest, of building and furnishing a nurses' home in connection with the hospital, which, fitted as it is with every luxury and comfort, stands as the envy of all the hospitals in the world, and as a witness that, through the years to come, shall testify to the beautiful deeds of a man whom we all love and delight to honor. Long may he be spared to guide and advise us.

I would like to divide my remarks into two classes: those which concern the strictly professional, and those which have to do with the ethical side of nursing.

First, then, I will speak of that use of *observation*, which has to centre itself upon the medical condition of a patient. This power of clinical observation is one which goes farther, in the eye of a physician, to mark a perfect nurse than any other. Without

it we may have an excellent attendant, but she is simply a faithful and kindly automaton.

Nothing in my estimation marks the capable nurse in a general way more clearly than her history paper and chart. A glance at the remark column reveals the work of a clear, clever, observing nurse or the meanderings of mediocre nothingness. Who could dare pronounce that nurse capable, who has not studied the significance of the attitudes, the facial expression, the voice or the cry of a patient, and who therefore does not remark clearly upon these in her history paper? Is this faculty a gift? Only to a very limited extent. It is found in every nurse of good ability and intensity of purpose, and can be brought to perfection by training and study.

*Loyalty* is another great attribute. First, to the attending physician. Never swerve from absolute fidelity to the physician in charge. Without this watchword you are dangerous to one who should be, and generally is, your best friend. Once let a suspicion of disloyalty arise, co-operation ceases, and co-partnership in the case must end.

How simple it is to be disloyal. A mere look, a shrug of the shoulders, an indiscreet word, produces, in the mind of an anxious mother, wife or sister, a feeling of wavering confidence, which soon leads to distrust and ends in a request to the physician to resign his case to another. He may be dumbfounded and unable to understand the meaning of such procedure, but, believe me, it is only a matter of time ere such conduct brings its own punishment and reflects with swift justice on the thoughtless nurse. Loyalty is a beautiful word, descriptive of grand and noble qualities and embracing fidelity, truth, obedience and devotion.

Be loyal also to yourselves in the matter of health and personal welfare. By this I mean, while giving the closest attention to your patient, remember that you are not made of wire or rubber, and can only stand a certain amount of fatigue. Should you feel the working hours too long, and the strain telling on your general strength, do not hesitate to inform the attending physician, and rarely indeed will you find him fail in bringing about a more beneficent state of affairs. See that you get proper rest, proper exercise and proper food at regular hours.

Lastly, let me impress upon you the necessity of at least one month's absolute rest in vacation. A holiday enjoyed in the country, away from telephones and the trying atmosphere of the sick-room, with its innumerable and necessary calls upon your sympathy, nerve and strength, will amply repay you in renewed health and vigor.

So far we have dwelt upon the features of *active nursing*, but

your profession calls for qualities that shall fit you for work beyond that of your nursing office—work that in most cases will occupy the greater portion of your time.

The days of sickness are succeeded by that longer period of convalescence, in which, because the sands of life are still running low, the words of the Preacher are realized: "Desire fails, and the grasshopper is a burden." Over this weary waste of colorless days and restless nights you must guide your patient with a wise hand. Health and strength are still far away, and yours must be the task of winning back interest in life, of beguiling the time and of cheering the intense depression caused by weakness. This you may do greatly by the aid of books—those that you have read yourself and those that you read to your convalescent.

Good books, then, should be the companions of your own leisure, in order that you, absorbing the thoughts of great minds, shall so mould and enrich your own that out of it, as from a storehouse, you may bring forth things new and old to entertain and cheer your patient.

The self-culture of the nurse is of the best kind and for the noblest object. Others may have as their aim the attainment of prominence or of influence, the outstripping of their fellows in the strenuous intellectual race of to-day, but you are doing all in order to better serve the sick and sorrowing, and, in your altruism, are closely following in the footsteps of Him whom you serve, and are carrying out His purpose.

A second thought to do with your use of books is the fine art of reading aloud. At its best it is a fine art, a great delight and pastime to the listener: at its worst it is as cruel a torture as was ever invented by the Inquisition! Have you ever endured it? Have you ever lain upon a bed of sickness while a kindly friend, with the best intention, having come to "read aloud," proceeds to gabble off an endless chain of words in a meaningless monotone? Have you ever watched the struggles of the reader, who, never having waited to rest at the landing stages kindly provided by punctuation, at length pauses in the wrong place from sheer exhaustion, and then flounders on, to pull up now and again at a full stop, which is the only landmark of which she seems at all cognizant? In vain do commas, colons, semicolons exist as brakes—for her there are no brakes; on she flies until your head is in a whirl, and you are only deterred by your weakness and grudging courtesy from forcibly checking her. If you have suffered this, you will know what bad reading can mean. Good reading is very rare. Even at lecterns and in rostrums it is by no means the rule. There are so many things for the reader to watch in herself. First, of course, this matter of the proper proportion of

punctuation; then enunciation—clear, low and distinct, with a careful attention to the end consonant of a word. Then the voice and tone (so important a matter at all times in a sick-room), carefully modulated, resonant yet soft, as a woman's voice should always be. If fiction is being read, then a certain amount of dramatization is required: remember that you are impersonating all these characters to your listener. Throw yourself, then, into the minds and moods of these, express them with your voice, and let her see these men and women playing their part as upon a stage. Oh, you do not know what pleasure you can give to the listener, what justice you can render to the writer, by the cultivation of expression. Feel your words as you utter them, and you will transport your patient into those scenes of which you read. Through you she shall even hear the chimes ringing, shall see and feel the snowdrops nodding on their bank, and for her as for you the human characters of the book shall live and act and speak.

Now, have patience with me while I speak of an inseparable trio of qualities that must be in the possession of every successful nurse. I refer to keen power of observation, tact, and sympathy.

What, then, is this first? This power of observation, whence does it come and how is it obtained? Is it a gift? I think that the manner in which we are apt to speak of qualities as gifts paralyzes humanity. We seem carried back to the tales of our childhood, in which benign, fairy godmothers bestowed especial charms upon a child, and she thenceforth went out conquering and to conquer by these magic forces; or we have a vision of qualities dropped from the clouds into the minds of some favored mortals, while the rest drop back in the race discouraged.

To talk thus is to dishonor the Father whose sun shines on all alike. He has willed that, relying on His power, all things shall be obtained by effort. The very meaning of the word "cultivation" emphasizes this truth. What is to cultivate but to foster and watch the tiny seed growth, and so to nurture it that it becomes a strong plant—a mighty tree.

Cultivate, then, this power of observation, this present and keen attention to all that is passing before you, this comprehension of expression on your patient's face as an index to the mind and the body.

Let sweet sympathy be yours to give. Some, I know, not by reason of hardness, but rather because of an inborn reserve, which is, perhaps, not only an individual but a national trait in the whole Anglo-Saxon race, find it difficult to express deep feeling—to open the floodgates and let loose those streams of tenderness whose source is God, and whose waters refresh the stricken souls of men. I pray you, make the most of your great opportunity.

To you will be open the "wounds that shame would hide"; to you the hitherto dumb souls, moved and humbled by distress, will speak. Do not send them away empty, for lack of a little love. Remember that in your calling you show forth the ideal woman; you stand in league with the hosts of ministering angels to these suffering ones who thirst for sympathy and tenderness as the parched plant thirsts for the dews of heaven.

I think that sympathy will give you tact, that quality springing from a desire to shield others from pain and annoyance. It is so necessary to impress its importance upon you, so difficult to explain its nature! Like some sweet bird that gladdens you with its song, yet ever hides from sight and evades your grasp, so does tact seem to elude an *exact* definition. The Latin word brings us nearest to it—"tactus," touch, handling. Have you ever noticed the peculiar sensitiveness of touch that belongs to the blind? The mind of the tactful person is as sensitive to the feelings of other, to the situation of things, to impressions produced by circumstance, as the fingers of the blind are to touch.

You will, then, understand that you must be sympathetic and observant before you can be tactful; you must be alive to everything about you. So shall you be enabled to stand between your patient and all hurtful things. So shall you be quick to interpret a glance, a passing shadow on the face, to avert another's blundering speech, to control your own features when alarm or surprise expressed through them might shock your patient.

By means of tact you will be enabled to preserve that necessary atmosphere of calm and peace in the sick-room, to speak when speech is best, to withhold when silence is golden, to steer your way by its thread-like guidance through labyrinths of difficulty that may await you in the household and to gain the confidence of your physician and the love of your patient and the members of the family who, with hearts wrung and nerves set on edge by anxiety, look to you for soothing help and find it.

Again, no one in all this working life of ours needs *patience* more than those in your calling. Patience and forbearance are the motto words of the nurse and the physician. With the querulous fretfulness and unreason of the sick, with injustice and interference from without, you will often have to bear. Under conditions of exceptional difficulty you will oftentimes have to exercise a patience great enough to check the hasty answer on your lips and even expel the expression of annoyance from your face. Now and again the struggle would end in defeat and disaster, were it not for two aids to patience upon which you can always depend: your womanly sympathy, to which the appeal of a tired, pained, and therefore irritable fellow-creature will never be in vain, and your own close following of Him who kept silence amid



much threatening. You will remember with Ugo Bassi, in the "Hospital Sermon," that the world is a

"fitting school  
Of patience, for the time we must remain,  
Of charity towards fellow wayfarers  
Beside us, bearing each his human cross  
In secret or in sight; but each his own."

What remains there more to tell you? Neatness, cleanliness and daintiness of person, all these are indispensable to you. In every walk of life they should be found. The idea of womanhood carries with it the sweet fragrance of that violet chosen by one poet to represent her in quiet seclusion. Sweeter and more acceptable to the patient than all the flowers sent to the sick-room shall be your dainty presence in it.

In closing, let me remind you of what you yourselves must feel. Never, in all your nursing career, will you have a greater opportunity for exercising all that is best in your noble calling than you have had here. Never was there a better setting for the picture of a perfect nurse than this house in which we are assembled and which is your starting-point. It stands as a witness to that in man which is well pleasing to God, an outcome of tender, practical compassion for His little ones. Let me in these closing words show you how you have fulfilled the ideal of a great man who lived before your time, but not before mine. In his day woman's sphere was narrowly limited; in his day there was darkness and unrelieved suffering among the little ones in the crowded alleys of the cities. To him came a vision of how the children should be healed, and the woman, in great work for them, should fulfil herself. He wrote the vision in that unequalled prose, sweeter than verse, which sent his name to posterity as John Ruskin, the singer and poet in prose. He would have rejoiced to-night—we think he does—for the music of his dream, echoed from hill to hill of time, has found its answering chord in you who stand here to-night, among the cots of little sufferers who have been brought in thousands to find comfort and ease in this house, and, in you, a personification of love and tender pity.

This is what he wrote in longing and desire: First, speaking of the tending of her garden by a woman, he continues:

"And do you think it not a greater thing that all this you can do for fairer flowers than these? for flowers that could bless you for having blessed them and will love you for having loved them, flowers that have eyes like yours and thoughts like yours and lives like yours, which, once saved, you save for ever? Is this

only a little power? Far among the moorlands and the rocks, far in the darkness of the terrible streets, these feeble florets are lying with all their fresh leaves torn and their stems broken: will you never go down to them, nor set them in order in their little fragrant beds, nor fence them in their shuddering from the fierce wind? Shall morning follow morning for you but not for them? and the dawn rise to watch far away those frantic dances of death, but no dawn rise to breathe upon these living banks of wild violet and woodbine and rose?"

And your answer has been: *We will arise and go.*

## CALMETTE'S TUBERCULIN OPHTHALMO REACTION.

BY JAMES MACCALLUM, B.A., M.D.,

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AND

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ON June 25th, 1907, Calmette described in the *Gazette des Hôpitaux* a new way of diagnosing tuberculosis in man by dropping into the eye a little tuberculin. As glycerine is irritating to the eye, he uses a solution of dry tuberculin, precipitated by alcohol, in distilled and sterilised water. The solution must be fresh, not kept for longer than two days, and of one per cent. strength. It has no effect on the eye of a healthy person, but in a tuberculous subject, from 3 to 6 hours afterwards, the caruncle and plica semilunaris become reddened. The redness and swelling extend to the palpebral conjunctiva, being most marked in the lower fornix. The patient complains merely of the eye feeling gritty, and small masses of secretion appear. This, called the "Ophthalmic Reaction of Calmette," may last from 18 hours to 3 or 4 days, or even longer.

For its use, one eye should be normal, *i.e.*, free from any external inflammation. The reaction is confined to the eye into which the tuberculin is instilled, but in the *British Medical Journal* of December 28th, 1907, are records of two cases in which instillation in one caused reaction in both eyes.

Ordinary tuberculin—T.R. or the emulsion—or the old tuberculin must never be used in making the test.

If the eyes are both inflamed, or if Calmette's test does not react positively, tuberculin should be used by injection.

We have tried the test in 25 cases, *viz.* :

## Positive Reaction—

1. F. 24 years. Male. Typhoid, followed by ascites. Calmette positive, lasting 10 days.
  2. N. 28 years. Male. Acute tuberculosis. Hemoptysis. T. bacilli. Calmette positive.
  3. N. M. 9 years. Female. Morbus coxae, with abscess. Calmette positive.
  4. G. B. 6 years. Male. Morbus coxae. Calmette positive, reaction lasted 5 days.
  5. R. A. 7 years. Male. Pott's disease. Calmette positive.
  6. C. F. 8 1-2 years. Enlarged cervical glands. Calmette positive.
  7. E. C. 13 1-2 years. Female. Enlarged cervical glands. Chronic bronchitis. Recurrent attacks of strumous keratitis. Family history tubercular. Bossing of frontal eminences, pointed prominent upper canine teeth. Notch in left upper central incisor.
- Jan. 17—One drop of one per cent. solution was put into right eye, which was in a healing condition from an attack of strumous keratitis. In 5 hours there was intense reaction, child cried with discomfort. Conjunctiva red, angry and swollen, much lachrimation and photophobia, and some watering of left eye.

- Jan. 18—Symptoms aggravated. Cornea stains with fluorescein.  
 Jan. 19—3-4 of cornea stains. Conjunctiva and sclera angry-looking.  
 Jan. 20—Reaction abating.  
 Jan. 23—Eye in same condition as before serum was used. The usual routine injection of 500 units of antitoxin was given.  
 Jan. 25—A small white granular nodule forming in centre of cornea. Stains with fluorescein.  
 Jan. 27—Granule now about 3x4 millimetres, slightly raised.  
 Jan. 28—Granule now reaches to the limbus above; there is a characteristic salmon patch. Some excavation of granule just below salmon patch. Cornea bulging. Lids swollen. Conjunctiva swollen. Conjunctiva of upper fornix swollen so that it prolapses at outer canthus when upper lid is raised.  
 Jan. 30—No improvement. Cornea filled with large central whitish mass. Great injection of bulbar conjunctival vessels. Sclera beneath has bluish appearance.  
 Feb. 2—Slight improvement.  
 Feb. 16—Central whitish mass has almost disappeared. Eye quieting.  
 8. A. B. Female. 7 months. Meningitis. Calmette positive. Post-mortem shows tuberculosis of the bronchial glands and meninges.  
 9. C. D. Female. 2 years. Ascites. Calmette positive.

#### Negative Reaction—

1. P. 24. Retracted upper right lobe. Calmette negative.
2. K. 54. Fibrosis of left upper lung. Specific history. Negative.
3. T. 18. Mastitis, left. Had been treated with tuberculin. Negative.
4. Boy. 14. Typhoid followed by arthritis of hip. Negative.
5. K. 54. Arthritis of the knee. Negative.
6. C. D. A case of cured lupus erythematosus. Negative.
7. A. B. Empyema. Negative.
8. J. C. Female. 14 months. Suppuration in left orbit and necrosis of its inner wall. Negative.
9. W. A. 14 months. A large suppurating gland in neck. Negative.
10. L. S. 10 years. Empyema. Negative.
11. R. T. 7 years. Ankylosed elbow, acutely inflamed from recent injury. Negative.
12. Lorne H. 10 years. Subacute arthritis. Negative.
13. F. P. 10 years. Growth in chest wall and enlarged axillary glands. Negative.
14. J. D. 13 years. Superficial keratitis. Negative.
15. P. C. 13 years. Interstitial keratitis. Inherited syphilis. Negative.
16. L. G. 12 years. Interstitial keratitis. Inherited syphilis. Negative.

It has been assumed where the tubercle bacilli have settled in the body they secrete products of metabolism which unite with the receptors of adjacent cells and make these especially susceptible to the influence of fresh tubercle toxin, or, to put it in another way, excite in them an increased capacity to form antibodies. The same is true for injections of tuberculin. The tuberculin is especially attracted by these cells. They produce antibodies in great profusion, whereby especially leucocytes and lymphocytes are attracted, in order to render harmless the new toxin. This increased capacity to form antibodies was ascribed only to the cells which lie in proximity to the tuberculous focus, but the ophthalmic reaction has caused this theory to be modified. We must now suppose that ALL cells in the body of the tuberculous have an increased capacity to form antibodies. Hence the introduction of tubercular toxin causes a local inflammatory reaction at *any part*

of the body, whether there be present there a latent or an active tuberculous focus or not.

Kohler says, from trial with 175 known tuberculous patients, that 95 per cent. do react. Baldwin found 43 react, 1 failed (miliary tuberculosis), and 1 treated with tuberculin. Patients with miliary tuberculosis and those almost moribund do not react, neither do they to the subcutaneous injection, possibly because the system is overpowered with the toxin. Lenhartz found that in patients who had been treated by tuberculin injections, the Calmette reaction was always much less marked, and that the less tuberculin the patient had been given the more marked the reaction.

Calmette says that the eye acquires an increased susceptibility, so that a negative first test may be followed by a second positive reaction. Be that as it may, German clinicians do not rest satisfied with a negative reaction to a 1 per cent. solution. Only after two, three, and four per cent. solutions have failed of results are they content.

Lenhartz injected tuberculin in a number of those who gave the ophthalmic reaction, and established that they reacted in the characteristic way. An interesting fact noted by him was that a conjunctiva, which had become normal after the ophthalmic reaction had passed off, again was injected after the subcutaneous administration, bearing out Calmette's observation.

Baldwin of Saranac had shown those negative to the ophthalmic reaction do not react to even large subcutaneous doses of tuberculin.

Is it dangerous to the eye, or to the patient himself? It has been proven clinically that it is safe. It is true that Kalt has recorded a case of sclero keratitis and one of tubercular iritis seemingly made worse by it. Terrien records a tubercular conjunctivitis occurring in a child evidently tubercular, after the Calmette. Whether these were coincidences can never be decided.

Theoretically, it is impossible to see how a tuberculosis can be lighted up by it, for the tuberculin is obtained from the old original tuberculin of Koch. The old tuberculin, T.A., it is important to remember, is the FILTERED, concentrated, special bouillon in which the tubercle bacilli have been cultivated; in other words, the product of the metabolism of these bacilli, their toxin. The alcohol precipitates the albuminous bodies, and it is a solution of these which is instilled in the eye. How, then, can it possibly infect the eye or the body with tuberculosis, for it does not contain the bacilli? If it were made from the tuberculin R. or from the emulsion which contain ground-up bacilli as well as the toxin, there would be more weight in the objection.

Will the reaction tell us when a tuberculosis is healed, and relieve us from the examination for bacilli?

Baldwin of Saranac obtained the reaction in patients who *clinically* had recovered from tuberculosis and been healthy for periods of one to seventeen years.

May it aggravate a disease present in the eye tested, or in the other eye, whether that disease be tubercular or not?

The test should be made only in an eye free from conjunctivitis of any kind. Some observers say that trachoma is made worse by it; others deny this. That the concurrent hyperemia may aggravate, temporarily at any rate, an affection of the anterior structures of the eye—the cornea, iris, and sclera—seems reasonable, depending on the greater or less reaction produced. The deeper structures of the eye should escape. One observer found that, instilled in a sound eye, the other having been wounded, there was no reaction in either eye.

True found in a patient who had the bacilli and the tubercular choroiditis in one eye, the reaction was not more marked in the affected than in the sound eye, nor was the deep lesion aggravated by it.

Numbers of seemingly healthy people have reacted. It must not be forgotten that—

1. The reaction may occur from insignificant and easily curable forms of tuberculosis, *e.g.*, tubercular glands.
2. Post-mortem records show the great frequency of slight tubercular deposits which gave no clinical signs.
3. Systematic subcutaneous injections of tuberculin in healthy and suspected individuals have given positive reactions in from 50 to 60 per cent.

If the reaction is present, tuberculosis is present. It may be a laboratory rather than a clinical tuberculosis.

However exact and positive our methods of diagnosis, we must always be guided by that impalpable something we call clinical judgment or experience. Shall we make a hypochondriac of a healthy man who, with some intercurrent disease, gives a positive reaction. Shall a positive reaction indicate active treatment? The practical and hygienic questions opened up by Calmette's reaction are too wide to enter into.

Is a negative reaction to Calmette sufficient proof of the absence of tuberculosis?

Experience has shown that one must not be satisfied with a negative reaction from a half or one per cent. solution. Stronger solutions, one to four per cent., should be tried before accepting a negative reaction. It is reasonable to suppose that this reaction will prove to be less delicate than others which will, no doubt, be discovered upon further knowledge of the blood changes of tuberculosis. Yet the ophthalmic reaction cannot well be improved upon for simplicity and ease of application. It has the further advantages that there is no rise of temperature and no constitutional disturbance. It has been shown to be trustworthy. Its

one weak point is that we cannot tell how great the reaction will be in any given patient, but neither can we tell with quinine or morphine. The suggestion has been made that a marked reaction possibly means great resistance of the patient to the disease.

Calmette's reaction will become a recognized clinical test for tuberculosis, but it will not cause the subcutaneous injection of tuberculin to disappear. A closer acquaintance with the tuberculin as a diagnostic agent will lead to its more frequent use therapeutically. The subcutaneous must remain the method of choice when both eyes are inflamed and tuberculosis is suspected. Morax prefers the subcutaneous injection to the ophthalmic reaction, because the local ocular reaction added to the pyrexia shows that there is a tubercular focus not only in the body, but in the visual apparatus as well.

# Medicine.

IN CHARGE OF  
J. J. CASSIDY, M.D., W. J. WILSON, M.D.,  
AND J. H. ELLIOTT, M.D.

## TUBERCULOSIS IN THE NAVAL AND MILITARY FORCES OF THE EMPIRE.

THE January number of the *British Journal of Tuberculosis* is principally devoted to a discussion of this subject. It is satisfactory to note that in the navy the incidence of the disease is less than amongst males of the civil population at the same age, while in the army it has about the same incidence.

This is contrasted with conditions existing forty years ago when the services showed a greater number of deaths from tuberculosis than the civil population.

This change is ascribed to the great improvement which has taken place in the hygiene of both navy and army. In the navy the death rate has fallen from over 2 per 1,000 strength in 1860 to about 0.5 per 1,000 in 1906, and the invaliding rate from over 6 to about 2 for the same years. In the army there has been a corresponding decrease, the death rate per 1,000 strength in the sixties being 2.5, compared with 0.5 during the past four years. The invaliding rate has fallen in the forty years from 4 per 1,000 strength to 1.5.

The death rate in the army has thus fallen about 80 per cent. In the civil population the death rate has fallen in forty years from 3.5 per 1,000 to 1.5 per 1,000 (males 15 to 35 years of age), a decrease of over fifty per cent. This is much less than the decrease in the army, where the marked improvement must be attributed to bettered surroundings during the above period. A Royal Commission to inquire into the sanitary condition of all barracks and hospitals in the United Kingdom reported in 1860 many barracks with living and sleeping room with less than 250 cubic feet per man—practically all had less than 500 cubic feet per man. They also reported "that in 83 barracks of the United Kingdom, containing 3,130 rooms and 42,521 men, with from 200, 400, 500 and in very few rooms only 600 cubic feet per man, no means of ventilation had been provided," and in 78 barracks with 230 cubic feet per man and upwards, ventilating arrangements, showing all stages of imperfections and inefficiency, had been introduced. Since then much has been done, and the universal rule now is 600 cubic feet of space in barracks for every soldier.

Improvements in clothing, better diet, increased temperance,



have had some effect, but the improved housing has been the great factor.

In the Indian service there has been a steady decrease of tuberculosis in European troops, the admissions to hospital falling from 6.4 per 1,000 in 1885 to 2.1 in 1905; on the other hand the native troops show an increasing incidence, the hospital admissions having noticeably increased during the 20 years. There is a great difference in the admissions from the several races comparing the native forces, as shown by the following table:

Gurkhas, 7.3; Rajputs, 6.63; Dogras, 5.94; Vats, 3.7; Hindustani Mussulmans, 3.45; Hindustani Rajputs, 2.75; Other Caste Man, 1.9; Sikhs, 1.78; Punjabi Mussulmans, 1.7; Brahmins, 1.6; Muharattas, 1.5.

One of the most striking facts brought out is that the Gurkhas which head the list are flesh eaters and of rather dirty habits, while the Brahmins, showing such a low incidence, are high class Hindus. They are supposed to be the cleanest race in India, are pure vegetarians, never eat meat of any kind and do not indulge in tobacco or alcohol. The Muharattas, too, are cleanly and usually conform to strict Hindu habits.

As to the relative prevalence of tuberculous disease in the various armies of the Great Powers, the French Army gives by far the highest ratio of admissions, the Austria, Hungarian and German the lowest, while the armies of England and Russia occupy about a middle place. In the British and American Armies the conditions of service are comparable and racial difference negligible. The death rate in the American Army in 1905 was 0.86 per 1,000, compared with 0.31 for the British Army for the same year. In the American Army in 1897 the rate was but 0.33 per 1,000; since then it has been steadily increasing. The invaliding rate for 1905 was 3.67 in the American Army, compared with 1.56 in the British Army.

J. H. E.

## Proceedings of Societies.

### EX-HOUSE OFFICERS' CLINICAL MEETING.

THE following cases were shown at the November meeting of the ex-house officers of the Toronto General Hospital, by Dr. H. A. Bruce:

1.—W. G.

Family History—Negative; one brother died of diabetes mellitus.

Personal History—Age 37; born in Canada; occupation, that of a brakeman on railroad; had diseases of childhood, otherwise no serious illness; for last three months has had considerable pain in the right leg, which has been spasmodic, and would shoot up the right side.

Present Illness—On November 17th, about 10 a.m., he felt a severe pain on the right side of the abdomen, shooting up towards the epigastrium. An hour later this pain localized to a spot near McBurney's point, which was very tender to the touch. The pain and soreness remained about the same—less if anything—for a week. It was always increased on drinking or eating anything. His bowels had been regular, but constipation set in with the onset of this pain. An enema, however, would be quite effectual. On November 18th, during the afternoon, he began to vomit, and continued to do so for 24 hours. At end of first week he noticed a mass in the right iliac region, about the size of one's fist, hard, and exceedingly tender to touch.

Local Condition—Large mass felt on the right side in appendiceal region; right rectus was quite tense. White blood corpuscles, 20,400.

Op., Nov. 28th—Incision through the right rectus, as this was over the mass. As soon as peritoneum was cut a large quantity of foul pus came out. All the pus was wiped out and careful search was made for the appendix. This was found to be macerated, but was removed quite readily. Cigarette drain and some gauze used.

November 30th—Gauze removed. Temperature, 99 2-5; pulse, 80; feeling comfortable.

December 2nd—Temperature, 98 2-5; pulse, 84; all drainage removed and a narrow strip of gauze inserted.

December 5th—Patient feeling quite well; very little discharge.

December 12th—All gauze left out.

December 15th—Patient up and walking about.

December 19th—Patient discharged; wound healed perfectly.

2.—A. D.

Family and Personal History—Negative.

Present Illness—On Sunday, November 11th, patient complained of a sore throat, and was treated for such. On the morning of the 12th the throat was better, but patient had pain all over the abdomen, and also marked tenderness. Condition remained the same until 17th, when the pain became more intense. Then the surgeon was called in. Bowels were constipated, purgatives only being effectual. Patient was sent in for operation at once.

Operation—Battle's incision was made. There were a lot of adhesions around the cecum walling off the general cavity, but about 3 pints of pus came from the right iliac fossa. The appendix was found to be adherent to the rectum. Pus cavity was cleaned out and rubber drainage tube and gauze were used as drains: remaining portion of wound was closed with silk-worm gut stitches interrupted. On the fifth day all the gauze and tubing was removed and cavity syringed out. Small piece of tubing was inserted, and wound kept clean.

Wound healed up steadily, and patient was discharged on December 23rd, with wound quite healed.

3.—W. B.—Came in complaining of pain in right side of abdomen. It began high up, near the costal margin, about seven weeks ago. Vomited for about first 24 hours. Then became very tender, and pain became more severe. Was admitted to St. Michael's Hospital, when abdomen became distended, tense, and hard, and some swelling or tumescence on right side. Remained in hospital for three weeks; only a slight soreness remaining. This remained for another three weeks, when he came to T. G. H. for operation. Found a mass to right and a little above the umbilicus. Walled off the peritoneal cavity with gauze and found pus below and behind the gall-bladder. The apex of the appendix lay in the abscess, and was perforated. It was very large and inflamed, and was removed by clamp and stump inverted, and buried by purse-string method. When wiping out the abscess cavity, two faceted gall-stones were found. A stab wound was made above the crest of the ilium for purposes of drainage, and the anterior wound closed with "through and through" silk-worm gut sutures.

4.—E. S.

Family History—Father and mother l. and w.; mother is a very nervous woman; 1 s. l. w.; no history of tubercular disease or carcinoma in family.

Personal History—Age 22; was a strong, robust girl till two years ago, when she began to fail in weight to a slight extent;

she has been in the hospital on nine different occasions for operations, which have amounted to 18 in all.

In October, 1900, she had a finger amputated at the interphalangeal joint for Raynaud's disease, then at the metacarpophalangeal joint. Then at various intervals a finger and toe would be amputated as each became affected. She could always tell when the part would be affected, as it would get numb, then swell and get blue. It would then blanch out and become gangrenous all inside one week. The toes on both feet are gone, as well as all the fingers (except the great one) on the left hand, and the middle finger of the right hand.

In March, 1908, the middle finger was amputated, and at that time there was a patch of necrosis on each knee—on its under surface. The patches were quite superficial, the upper layers of the skin only being affected. Moist dressings were applied and parts healed up, and patient was sent home. Bowels at the time were constipated, urine normal.

On July 15th, 1908, she was admitted again, as the dorsum of the right foot had become gangrenous. These patches are quite typical, and in about one week a symmetrical patch will be noticed on the opposite leg. She notices the part to be affected gets numb, and in about 24 hours it blanches out, and then in the centre a red spot appears, and a fine red line marks its boundaries. This process usually takes 48 hours, and it then gets black, and all sensation in skin is lost. The skin sloughs off, and in about three or four weeks that area heals. These areas are oblong in shape, being usually about 4 inches long and 2 inches wide. From then till now fresh patches have broken out, till all the left leg below the knee has been affected, and all the right leg below the knee excepting the posterior surface. The plantar surfaces of feet have not been affected. These areas break down again, and each time the ulceration goes deeper. The left leg has ulcerated four times, the right leg once. She cannot keep the legs in any position other than the horizontal on account of the pain being increased. Her nutrition remains good, and she is exceptionally bright. Her bowels have been very constipated, requiring mag. sulph. and enemata frequently.

From September 7th till October 3rd, her bowels did not move at all. Although she had castor oil, purgen tabs., jalap, pil. cath. co., four at a time, and croton oil, still nothing was effectual. Besides all these, she had several enemata. She does not sleep well, and appetite is very poor, yet she does not seem to lose weight to any marked degree. Her temperature began to vary from 98 degrees to 102 degrees and 103 degrees, and as she was distended to a great extent, an operation was decided on. Abdomen was opened and small and large bowel were irrigated. Strange to say, there was very little residue in bowel, but what there was, was very hard.

Operation was on the morning of the 3rd. She became distended on the 5th, and a high turp. enema was given. A large quantity of flatus was expelled, as well as a distinct watery movement. Then, at noon, the bowels moved again, and this time there was a large quantity of fecal matter. This was not the result of a purgative or enema.

On 8th, had a free motion, as result of an enema.

11th—Bowels moved with enema; very free movement.

20th—Bowels are moving slightly.

Nov. 20th—Bowels have not moved since October 20th, although lots of purgatives and enemata were given. Does not sleep well or eat much; ulcers breaking out above both knees.

Nov. 23—Another spot on right thigh.

Nov. 25—Condition much the same; bowels not moved yet; patient very nauseated; vomits all nourishment.

Nov. 27—Patient feels much better. Last night she passed urine, the first time for a week.

Dec. 1—Had voluntary passage of urine, 1 1-2 oz., to-day. Morphine sulphate has been increased gr. 1-8 for one dose during the night. Another area on left thigh.

Dec. 3—Bowels not yet moved, but patient feels slightly better.

A. D.—Age 16. Since 8 years of age has had recurrent attacks of pain in left lumbar region, especially this last three years; marked soreness this last two months. Pain is of a sharp cutting character, increased on moving, decreased on lying down. Does not disturb micturition. X-ray shows calculus about 1 1-2 inches down from junction of last rib with vertebrae and immediately below the 12th. Incision made in lumbar region, kidney exposed and carefully raised. Calculus felt in pelvis of kidney. A stab incision was made in vertex of kidney at junction of lower and middle thirds, and came down directly on stone, which was being held in other hand. Profuse bleeding of kidney; finger passed in with a scoop and stone extracted. Kidney sutured with cat-gut. Muscles and skin, silk-worm gut, and horsehair for skin. No drain.

J. McG.—Age 39. He often did not feel well after breakfast for about two years; had soreness over abdomen, and as day advanced would become localized to McBurney's point; no pain; constipated; castor oil relieved symptoms each time until two months ago, and was laid up for eight days; slight recurrence about a week ago, and decided to have operation. Battle's incision; appendix found adherent to surrounding parts; wide bands of adhesions about the bowel; appendix removed; incision closed without drain.

E. L.—Complaint: Dull pain in stomach and belching of gas about three hours after meals. Duration: about 15 years.

Family History—Nothing important.

Personal History, Previous Illnesses, etc.—Nothing important.

Present Illness.—About 15 years ago began to notice pain and distress about three hours after meals; noticed it more in winter than in summer; got relief if could raise the gas or eat something; used to carry a piece of bread in pocket to eat when pain came on. About four years ago the attack was accompanied by vomiting of dark, almost black, material; stools were black; has not vomited since, but stools are often black at times; his appearance became pale and blanched; no particular yellow tint; has not lost weight; no night-sweats; usually constipated after an attack; no tenderness after pain was gone.

Local Examination—No mass to be felt; stomach's greater curvature about 1 inch above the umbilicus; liver and spleen, not enlarged.

Operation—Opened in epigastric region to left of middle line and a gastro-enterostomy performed; had some hemorrhages after operation for a couple of days, but soon began to improve, and made a good recovery. Patient weighs about the same now, but is feeling well, and looks well to-night.

# The Canadian Journal of Medicine and Surgery

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## Editorials.

### MAGNESIUM SULPHATE IN TETANUS.

BLAKE reports (*Surg., Gyn., and Obst.*, 1906, No. 5) a case of tetanus, in which recovery followed the use of five subdural injections of magnesium sulphate during the course of ten days. The strength of the solution employed varied from 25 per cent. to 12.5 per cent. The former strength was only used on the first occasion, when 67 minims were injected; at the other times

2 drams of the weaker solution were used. In a second case the patient died, but, even here, the magnesium sulphate injections had a marked action on the symptoms. Blake claims that these injections conserve strength, as they prevent convulsions and pain. Hence, as a result, excessive metabolism and production of heat are avoided. Owing to the relaxation of the muscles of mastication, the patient can be nourished by the mouth. The action of the medicine is prolonged (twenty-nine to thirty-seven hours), and the heart is not depressed by it, the only bad effect, even of repeated injections, being inability to empty the bladder. Blake thinks that magnesium sulphate does not exercise any special action on the tetanus germ, and that it is merely a good form of symptomatic treatment.

Meltzen, who alludes to Blake's successful case (*Med. Record*, December 16, 1905), points out that the danger from magnesium sulphate anesthesia will come practically only from interference with respiration, as the heart and pulse remain unaffected. This will necessitate that hospitals in which the intraspinal method of giving magnesium sulphate is tried in tetanus, will require a suitable apparatus for artificial respiration, the ordinary clinical methods being absolutely insufficient for emergency cases.

Dr. H. Greeley, Brooklyn, N.Y., reports (*Journal of the American Medical Association*, Vol. xlix., No. 11) the successful employment of magnesium sulphate by hypodermoclysis in two cases of tetanus. In the first case, a boy of two years of age, tetanus antitoxin in large doses had been given; chloral hydrate, potassium bromide, apomorphin, morphin, had also been given, but unavailingly. A pint of distilled water, containing two drams of magnesium sulphate, was introduced, by hypodermoclysis, under the skin of the child's abdomen. The injection was given slowly, almost an hour being consumed in the operation. Within thirty minutes afterwards a marked amelioration of all the symptoms was noted, and continued, until, within an hour, the child fell asleep with nearly a total relaxation of the affected muscles. Cyanosis disappeared, even the jaws were loosened, and the pulse, which, before the injection, had become rapid and feeble, returned to an almost normal condition. The patient perspired profusely; his urine increased in quantity, and was passed in the bedding, staining it yellow.



A second injection of magnesium sulphate was given on the following day. Afterwards, the patient's condition improved still further, no tendency to relapse appearing, and complete recovery took place.

Dr. Greeley reports a second case of tetanus, treated with magnesium sulphate, the patient being a man of 45 years of age. The second patient received an injection, by hypodermoclysis, under the skin of the abdomen, of a solution of three drams of magnesium sulphate dissolved in a pint of water. The patient was also instructed to drink a dram of magnesium sulphate dissolved in water, three times a day. All symptoms of tetanus disappeared in twelve hours, and the patient recovered. Dr. Greeley, kindly replying to queries about these cases, says: "I did not attempt to find the bacillus of tetanus in the cases mentioned; but, in the first, at least, there can be no doubt that the diagnosis of tetanus was exact, as clinical manifestations were so marked. As for preferring hypodermoclysis to intraspinal injection, I think that the former method reaches the central nervous system more generally and surely, through the circulation, than is possible through the spinal canal. Also that almost any quantity can be repeatedly administered without the dangers of the latter."

It may be mentioned, incidentally, that Dr. Calcaterra (*Gazzetta degli Ospedali*, Milan, xxviii., Nos. 85-89, pp. 882-928) has obtained good results in preventing the convulsive seizures of epilepsy by the hypodermic use of magnesium sulphate and magnesium chloride. He explains the curative action of the magnesium salts, as follows: "(1) A direct action of the magnesium ions on the abnormally functioning nerve element; (2) removal of toxins from the blood serum, which renders it normal, and perhaps also exercises a similar effect on the organic fluids generally." Defective elimination through the kidneys of the poisons generated by the tetanus bacillus exercises a disastrous effect on the organism of the patient. Dr. Hughes says ("Practice of Medicine," p. 82), "In four post-mortem examinations of cases dying from tetanus at the Philadelphia Hospital, marked chronic nephritis was observed. Probably the future may show some connection between nephritis and tetanus, by which the specific poison is not eliminated, as it might be were the kidneys normal."

Dr. Greeley's cases, alluded to in this article, would seem to

show that the use of magnesium salts, by hypodermoclysis, in cases of tetanus, increases diaphoresis and diuresis, while, at the same time, the magnesium ions exercise an analgesic effect on the abnormally functioning nerve centres.

J. J. C.

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### WHY SO MUCH "SOB COPY" ?

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THAT charity is needed by little children and women this trying winter is true. There is, however, too much nauseating detail and far too much sentimental gush over the "dying babies." The Nurses in our Missions are overworked, and tired to death, and all because the Government have let immigrants, ignorant people with swarms of children, born in dirt and want in other lands, crowd into Canada and stay in our cities, as stay they will. Only the young and strong, both men and women, the men with through tickets to our Great Northwest, should be brought here, untrammelled with families, and on the understanding that they would proceed at once to where they are undoubtedly wanted, and help in tilling the soil of New Ontario and Manitoba. Let them become Canadianized first, then marry, in which case there will be far fewer unhealthy infants and less demand for charity in this fair land of ours. To avoid the detaining glamor of the cities, all immigrants' tickets should be without "stop-over privileges," it having undoubtedly been due to neglect on this point that the principal cities of Canada have this winter become overcrowded with a class, not only unfit to withstand our cold, but without the necessary means to support themselves owing to there not being work for everyone. If such people would but realize that there is work for one and all if they would proceed to the West, their condition of want and distress would be at once changed to one of comfort and contentment. A Settlement worker in New York "set up" a family who were shiftless and numerous in a home in the country and gave them "a start." Next winter she found them back again, depending upon the same charity as before. When asked the reason why, the mother of the brood remarked that they liked the city best, and that they really preferred "folks to stumps." It is certainly time that our Immigration Department at Ottawa took this subject seriously to heart and stopped this wholesale immigration from the slums of London and elsewhere of, in very many in-

stances, people who, though in want, will not work even if work be given them.

Though hardly within the province of a medical journal, we think it is but fair to say that physicians in our large cities have been doing their share to relieve the need that has been so prevalent, there being very few medical men who have not always been and will be more than willing to answer any call to visit, entirely without remuneration, the deserving poor.

The perfect emigrant should be  
A stalwart chap of six foot three,  
Filled with determination grim,  
And wholly sound in wind and limb,  
He should not ever be afraid  
To turn his hand to any trade,  
And he should further own a skill  
In each commensurate with his will.

Moreover, he should simply yearn  
Not to instruct, but just to learn,  
He should not put on British airs  
Or "side" about his home affairs.  
He should be confident, and yet  
As modest as the violet.  
Given these traits, he, more or less,  
May hope to meet with some success.

W. A. Y.

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### PHYSICIANS AS CARRIERS OF CONTAGION.

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DR. J. HERICOURT, in a communication published in *La Revue*, Paris, accuses physicians of being the most dangerous carriers of disease in modern life. French physicians, in his opinion, are exceedingly careless in their comings and goings, and must be responsible for the dissemination of many infectious diseases. For instance, he says, the man beside you in a street car or theatre may be a doctor, fresh from a scarlet fever patient. He thinks a doctor should enter the room of a patient sick with an infectious disease only after changing his street dress for a complete suit made of some material which can be easily washed and boiled, and which after disrobing should be left at the house of the patient. After removing these garments, the doctor should thoroughly disinfect his head, face, neck, and hands before resuming his street dress. "The doctor should keep his hair cut close and wear no beard. His consulting room should not be in his house, should be constructed like an operating room, and kept as scientifically clean." Although,

to the laity Dr. Héricourt's recommendations may be "counsels of perfection," to physicians who aim at perfection in the practice of their art, they are not of the negligible sort. In fact, why should not physicians place the practice of medicine on the same high level as the practice of operative surgery? A surgeon prepares antiseptically his own person, the instruments and dressings used, the body of the patient, and all that is near to it, in order to prevent, as far as possible, the access of microbes to the field of operation. A physician, on leaving the room of a patient sick with an infectious disease, should remove the attire he has worn there; and disinfect the exposed parts of his person, so as to prevent the diffusion of pathogenic germs from himself to others.

Dr. Héricourt's teaching is rather severe on physicians. If it were generally accepted as true, the entrance of a gentleman carrying a professional satchel into a street car would be little short of a calamity; while, if a doctor were to be seen at a theatre, or a church perhaps, seats in his neighborhood would be speedily vacated. Physicians know that, though they are sometimes exposed to scarlet fever, they generally escape its attacks. Age is the most important predisposing factor; 90 per cent. of the fatal cases of scarlet fever are under the tenth year. Many persons escape it altogether; we have attended a patient of seventy who had it for the first time. Seibert, who studied scarlet fever in New York, associated the remarkable drop in that disease in July, August, and September with the closure of the schools and the cessation of the daily congregation of infectious material in small areas—schoolhouses and playgrounds—for so many hours each day.

Then, scarlet fever is very rarely communicated by a third person. Referring to that feature in the infectivity of scarlet fever, Dr. Osler says ("Practice of Medicine," p. 131): "I recall one instance in which I could have been the only possible medium of infection. In a collective investigation on this point among physicians in the State of Connecticut, Loveland had 100 negative and 10 positive replies."

As these statistics show that scarlet fever is occasionally communicated by a third person, they give an air of reasonableness to Dr. Héricourt's teaching. Let us, therefore, accept his advice with a good grace, and, when we next treat a case of scarlet fever or diphtheria, let us wear a suit of white duck and a skull cap when in

the sick-room. Of course, it must be remembered that a separate suit of duck should be worn at each house where such an infectious disease is treated.

As it is the fashion nowadays to have the hair cut close, doctors and patients are pretty much alike. If a beard and moustache are kept in an antiseptic condition, they will not be a source of infection; perhaps it is safer to shave them off.

There is a good deal to be said for Dr. Héricourt's view that "the doctor's consulting room should be apart from his house, and should be constructed like an operating room and kept as scientifically clean." A list of the cases of infectious diseases which pollute the air and soil the furniture in a doctor's office during a month or two would not be reassuring to his callers. Some of the infections are dangerous. We once met a case of virulent smallpox, an unvaccinated man, who had been waiting in our office for over two hours. All sorts of people, clean and unclean, those beginning to sicken with infectious diseases and others who have them well developed, occupy the office night, noon and morning. If there is a room in a town where disinfection is called for, it is the office of a doctor with a large practice. Hence we cordially endorse Dr. Héricourt's advice, that the doctor's office should be so made that it can be kept "as scientifically clean as an operating room."

J. J. C.

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### THE CURATIVE EFFECTS OF A SPECIAL DIET ON MUCOUS COLITIS.

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Mucous colitis has been known for centuries. The presence of mucus in small amount in the feces is of no consequence; it is usual in constipation. When in quantity, and intimately mixed with the feces, it indicates catarrh of the small intestines. When in isolated masses, it signifies catarrh of the large bowel. In membranous or mucous colitis, long cylinders of mucus are passed, sometimes without much feces. These cylinders are generally swarming with *B. coli*, which infest the colon. It is a secretion in urosis of the large intestine, and is met with particularly in nervous and hysterical patients. Osler says ("Practice of Medicine," p. 531): "The treatment of mucous colitis is very unsatisfactory. Drugs are of doubtful benefit. . . . The coarser kinds of

food should be eaten, everything which leaves a bulky residue. Plenty of butter, fat, and oil should be taken with salads, etc. But this is too often the very sort of diet that these nervous women cannot take. Right inguinal colotomy has been performed with success in several cases of great obstinacy. The artificial anus should remain open for some time." Referring to this last point, Savill says ("A System of Clinical Medicine," vol. 1, p. 402): "The artificial anus is kept open for twelve months or more, during which time the cecum and colon are thoroughly irrigated, and finally the opening may be closed."

At a meeting of the Surgical Section of the Royal Academy of Medicine, in Ireland, at Dublin (see *British Medical Journal*, December 14, 1907, p. 1713). Mr. Seton Pringle exhibited a case of mucous colitis, in which he had performed appendicostomy for the purpose of providing more thoroughly for the washing out of the large bowel. The patient, a strong laborer, with no symptoms of neurosis, had for two years passed motions consisting of cylinders of mucus. Medical treatment and diet having proved unavailing, a appendicostomy was performed in June, 1907. Subsequently the patient had washed out his own colon daily with argyrol 1 in 1000 in the morning and normal saline solution at night; but the diseased condition was in no way ameliorated, and the treatment was regarded as a failure. On examination of the bowel with the electro-sigmoidoscope no gross lesion had been found, so that it was regarded as a true case of mucous colitis. The treatment of this case, after appendicostomy, had lasted about six months.

Dr. Carl von Noorden, who has written a treatise on "Membranous Catarrh of the Intestines" (colica mucosa), contends that this disease occurs almost exclusively in constipated subjects. Chronic constipation alone does not produce it; there must be, besides, irritability and over-activity of the mucus-secreting glands of the colon. The condition occurs in persons of a neurasthenic or hysterical predisposition.

Such patients do not thrive in high altitudes, nor at sea level, and they show a greater tendency to relapse if they go to such localities. They should live at a moderate altitude in a wooded country, and in a place where they can enjoy walks of moderate length, that do not overtax their strength.

The important items in the diet recommended for them are cream, butter, and Graham bread. The daily average of cream allowed amounted to 5 oz. 127 1/2 gr. The daily average of butter amounted to 8 oz. 49 1/2 gr. About two-thirds of this quantity were eaten as pure butter, with bread, potato, or vegetables and fish. The other third was taken cooked with the food. The average quantity of Graham bread was 7 oz. 24 gr. to 8 oz. 358 gr. Soup made from legumes boiled with bacon was allowed, also meat, vegetables, such as boiled or baked potatoes, fruits with coarse skins and large seeds, as currants, gooseberries, cranberries, or grapes. At 4 p.m. the patients took a walk lasting one and a half to two hours. During the first few days the patients passed most of the time in bed. On the first and third days of the treatment, in order to prevent any disturbance that might arise an oil clyster is given. Later on this is very rarely repeated. Hot compresses are applied to the abdomen or suppositories of gr. 3/4 belladonna are employed. Dr. Von Noorden says that if a case takes a normal course the pathological secretion of mucus does not continue once a week; in at least half the cases he treated, mucus ceased to appear in the stools, and did not return as soon as soft alvine motions began to appear. Von Noorden claims complete success for the treatment in 79 per cent. of the cases, incomplete success in 15.8 per cent., permanent success in 50 per cent., relapses in 13.1 per cent., unknown in 15.8 per cent., failure in 5.2 per cent.

A careful study of Von Noorden's treatise on colica mucosa will satisfy the reader that the dietetic treatment of colica mucosa yields the best results. -

J. J. C.

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### DRINK TO ME ONLY WITH --- ?

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"LITTLE drops of water, little grains of sand," other trifles and bits of bric-a-brac, such as samples of diving suits, etc., continue to compose the *aqua pura* that the citizens of Toronto drink, baptize, and bless themselves with. Just now the teetotalers are unusually busy about reducing the consumption of liquor in Toronto. If their enthusiasm were first directed against the present water supply and the surprise of pure water to drink became a reality, even the

oldest "toper" might "pledge a health" in water pure just to see what it tastes like. On the terrors of drinking the present city water the Academy of Medicine has spoken, the people have fumed, the daily press have writ it large in scare type, and the great National Council of Women have babbled like the little brook and tried to beguile the City Council into promises, but the Council have bowed them out, wishing them the compliments of the season.

Well, what is going to be done about it, that's the question, and who is going to do it? Answer echoes, "Who?" W. A. Y.

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#### EDITORIAL NOTES.

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**Bulletin No. 142, Milk.**—Bulletin No. 142, Milk, Inland Revenue Department, Ottawa, affords very interesting reading to those who take an interest in the quality of milk, which enters so largely into the food of people in health, and forms the almost exclusive food of infants and invalids. It gives Toronto a black eye, and this may be the reason why the findings of this bulletin have received but little notice in the Toronto papers. Of the 15 samples of milk purchased at Toronto, July, 1907, and analyzed, not one reached the standard set by the late chief analyst, Mr. Macfarlane—3.5 per cent. fat, 8.5 per cent. solids not fat; total solids, 12 per cent. The remarks, uncomplimentary, but unanswerable, made by the analyst on the Toronto samples of milk are as follows:

Sample 33281	—Genuine; under average in fat.
" 33282	—Genuine; under average in fat.
" 33283	—Watered.
" 33284	—Partly skimmed.
" 33285	—Genuine; below average in fat.
" 33286	—Watered.
" 33287	—Partly skimmed.
" 33288	—Watered.
" 33289	—Partly skimmed.
" 33290	—Doubtful; probably skimmed.
" 33291	—Watered.
" 33292	—Partly skimmed.
" 33293	—Partly skimmed.
" 33294	—Partly skimmed.
" 33295	—Watered.

In Toronto the by-law to license and regulate milk vendors requires that milk sold shall contain 3 per cent. fat and 12 per cent. total solids. Applying this Toronto standard, nine of the fifteen samples referred to were deficient in fat; fifteen



were deficient in total solids. Evidently the city milk by-law was not enforced in Toronto last July. It appears that the Toronto milk producers are unable to supply a milk containing 3.5 per cent. fat, and they say that the fault lies in their poor herds. Dr. Ellis, Public Analyst, Toronto, has recorded his opinion that it is impossible to assert that a milk has been adulterated with water, if the solids not fat exceed 8 per cent.; or that it has been skimmed if the fat exceeds 2.5 per cent. Commenting on Dr. Ellis' dictum, A. McGill, Chief Analyst, Ottawa, says: "This opinion is certainly justified, if certain herds in the Toronto district may be included among normal milk producers." That they are poor herds is evidently his opinion, for he adds: "That the low quality of milk now produced in certain districts could be raised to the proposed standard quality (3.5 per cent. fat, total solids 12 per cent.), by proper care on the part of dairymen, goes without saying. The natural incentive to needed improvement is quite evidently that the cities and towns purchasing such milk should insist upon their supplies having a fixed minimum value in fat and total solids. The local authorities must, of course, be charged with the responsibility of seeing that such enactments are enforced." The Toronto local health authorities should be compelled to enforce a reasonable milk by-law. The results of the analyses of milk sold in this city last July, which are vouched for by scientific authorities of high rank, show that at that time the Toronto milk by-law was disregarded.

**The Etiology of Alopecia.**—In a lecture on "Complete Alopecia," published in *The Medical Brief*, February, p. 72, Dr. Shoemaker, Philadelphia, mentions a number of the more prominent causes of alopecia. Heredity plays an important part, many persons inheriting poorly developed hair from their ancestors. Premature alopecia occurs more commonly in men, as women pay considerable attention to their hair, and likewise have a larger quantity of subcutaneous fat than men. An improper diet, deficient in easily digestible proteids, such as meat, eggs, and milk, is a cause of premature loss of hair in children, youths, and young adults. A deranged condition of the nervous system, Dr. Shoemaker says, is productive of alopecia, nervous derangement having been marked in the case he exhibited. He does not allude to syphilis, infectious fevers, seborrhea, eczema, parasitic diseases of

the skin, etc. among the causes of alopecia universalis. Irritation of the scalp from the use of a stiff brush, a sharp comb, dust, or other foreign material, frequent shampooing with strong soaps, dyeing of the hair, and close cutting of the hair, he mentions as the chief local causes of alopecia.

**The Treatment of the Initial Lesion of Syphilis.**—The initial lesion of syphilis should not be cauterized, unless it should be attacked by phagedena—cautérization irritates an otherwise simple ulceration and retards its healing. A dry dressing—calomel, 1 part; iodoform, 2 parts—answers well, or a weak solution of carbolic acid applied on lint or cotton three times a day will serve. Nowadays this practice is being reversed. Jacobson, Neisser, Joseph, Finger, and Hollander advocate the excision of the initial lesion or its destruction by the Hollander hot-air treatment. Jacobson says that he has saved at least ten per cent. of his patients from developing syphilis by an early destruction of the primary lesion. Finger reports a case in which the spirocheta pallida was found, the lesion excised, and no secondary symptoms appeared in a year. After reading such reports one feels like asking about the state of the inguinal glands of these patients. If, with the presence of the initial lesion, the glands in the patients' groins were simultaneously enlarged, perfectly distinct from one another, rolling under the skin freely and easily; if these glands were painless when handled, and not fused together, nor with the surrounding tissues, should they also have been excised, as well as the primary sore? The primary sore appears late after syphilitic infection; the period is variable, but an average of 21 days is allowed; the limits recognized are: Maximum 98 days, minimum 10 (Sturgis). Certainly, if the inguinal glands of a patient, the bearer of a primary sore, are enlarged, the excision of the primary sore would not prevent syphilitic infection.

**The Prevention of Syphilis.**—The practitioner is occasionally asked how the danger of syphilitic contagion may be obviated. There are, perhaps, some who would refuse to answer the question or who would reply in the words of John Sintelaer: "The only preservative against catching the venereal is to keep the finger out of the red-hot frying-pan." Professor Metchnikoff, Pasteur Institute, Paris, gives the sanction of his name to a calomel ointment

which he recommends as a preventive of syphilis. The formula of this ointment is—33 grains of calomel to 67 grains of lanolin and 10 grains of vaselin. It is efficacious, only when employed during the first few hours after contact with syphilitic virus, and it is useless to apply it in cases which first come under observation some days later. Professor Metchnikoff and his colleagues have been endeavoring to find an alternative treatment suitable for the late cases, and they think favorably of atoxyl, an arsenical preparation, which has been used successfully by P. Koch and others in the treatment of sleeping sickness. Experiments have shown, that a monkey inoculated with syphilitic virus and subsequently treated by the subcutaneous injection of atoxyl, does not develop syphilis. It is stated, that a single injection of atoxyl into a monkey, delayed until the fifteenth day after the inoculation of the syphilitic virus, prevented syphilitic infection. The dose of atoxyl necessary to produce the preventive effect on man is not settled. In two observations made on men by Professor Metchnikoff and Dr. Salmon, Paris, two injections of atoxyl, 50cg. each, were given, at an interval of two days. No signs of poisoning or intolerance were observed. No signs of syphilis supervened, but, as it was not known whether infection had really occurred in these cases or not, no conclusions as to the preventive effect of atoxyl on syphilis could be based on them.

**Bad Effects of Quinine in Gonorrhœa.**—Undoubtedly the principal use of quinine is in the treatment of malarial diseases. When we realize that quinine, 1 part to water 20,000 parts, is sometimes destructive of the plasmodium malarie, its efficiency as an anti-malarial agent is readily understood. But its very efficiency in destroying the plasmodium malarie inhibits employment in the diseases caused by the gonococcus. A patient who has either acute or chronic gonorrhœa, and at the same time requires the use of quinine for malaria, is in a very awkward position. Livermore calls attention to this difficulty in the *American Journal of Dermatology and Genito-Urinary Diseases*, August, 1907, and he claims that, if quinine is given for any length of time to a patient with gonorrhœa, it will render the later disease incurable. He treated five cases that developed malaria while under treatment for gonorrhœa, and each of them more than convinced him of the truth of the above statement. His explanation of the untoward action of

quinine in gonorrhoea is that, in all probability, quinine acts on the leucocytes in such a way as to allow the gonococci to penetrate deeply into the tissues, and that their complete eradication is made very difficult. This explanation seems reasonable enough. Writing of the effects of quinine on the circulatory system, Butler says: "Quinine in a remarkable manner affects the constituents of the blood. The ameboid movements of the white blood-corpuscles are arrested, preventing their migration through the capillary walls in inflammation, while their number is diminished by full doses of the drug, both in health and in inflammatory conditions." A reduction in the number of the effective combatants, the leucocytes, with great slowing in their movements, would seem to explain, to a certain extent, the untoward action of quinine in gonorrhoea.

J. J. C.

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#### PERSONALS.

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DR. GEORGE ELLIOTT, General Secretary of the Canadian Medical Association, has been appointed Provincial Medical Examiner for the Royal Arcanum in Ontario.

WE have received a handsome illustrated programme of European travel, Naples to Norway. Free copies will be sent on application to F. Withrow, B.A., Toronto.

DR. HUGH H. YOUNG, Baltimore, will give a paper on "Remarks on the Operative Treatment for Various Diseases of the Prostate" on Tuesday, March 3rd, 1908, before the Academy of Medicine.

DR. D. J. GIBB WISHART, Associate Professor of Laryngology and Rhinology in the University of Toronto, leaves early in March for Italy, where he intends to follow the clinics of Professor Massei and others in Naples, Rome, and Turin. Subsequently he will attend the International Laryngo-Rhinological Congress in Vienna in Easter week, which is being held to commemorate the fiftieth anniversary of the establishment in Vienna of clinical laryngology and rhinology by Turek and Czermak. Later Dr. Wishart will spend some weeks at the clinics of Professor Killian in Freiburg and Hammel in Heidelberg, before going to England. The doctor and his wife expect to return to Canada about the middle of June.

# Obituary

## SUDDEN DEATH OF DR. J. H. FISHER.

THE death of Dr. John H. Fisher, at his residence, 18 St. Patrick street, on Feb. 15th, was quite sudden and unexpected. He had attended his patients as usual on the Wednesday and Thursday previous, and at 4 o'clock on Saturday was dead from an obscure form of blood-poisoning following upon a cold and influenza, from which he had suffered only two days. Several physicians were in attendance, including his brother-in-law, Dr. Clemesha, of Port Hope and Drs. Dawson, Anderson, Bingham and Davidson of this city.

Dr. Fisher was born on the 9th of January, 1850, in South Monaghan, where he spent the greater part of his life. He was educated at Victoria College, Cobourg, taught school a couple of years at Bobcaygeon, then studied pharmacy and practised as a druggist in his native place for several years, and finally studied medicine, taking up practice in Toronto about twenty years ago, where he had been ever since.

He was a member of the Ancient Order of United Workmen, and belonged to St. Philip's Church. He is survived by his wife, who was Miss Clemesha of Port Hope; one son, Harold, a barrister in Ottawa, and one daughter, Miss Effie, at home. The funeral took place on Tuesday afternoon the 18th, to Mount Pleasant Cemetery.

## DEATH OF DR. J. McMASTER.

THE death occurred on February 20th at the General Hospital of Dr. J. McMaster, of 116 McCaul Street, from blood poisoning.

Deceased had been sick since December 8th last, and went to the hospital, where he underwent several operations. He contracted blood poisoning while at his work, and for some time it was thought his life might be saved. He rallied several times, but a few days before death ensued took a turn for the worse. Another operation was performed to relieve him, but he gradually grew worse, and he died on Thursday, February 20th.

Dr. McMaster was born in Barrie and lived there for some time. He had for several years been teaching at different colleges, and for some time was head of the Technical School. For the past few years he was in charge of the X-ray department of the General Hospital.

Deceased was 49 years old, and leaves a widow and two children. He was well known in medical circles and was a member of the I. O. F. and K. O. T. M.

## *News of the Month.*

### ONTARIO MEDICAL ASSOCIATION.—PROVISIONAL PROGRAMME.

THE Committees on Papers and Arrangements have pleasure in submitting the following programme for its 28th Annual Meeting, to be held at Hamilton, May 26th, 27th, and 28th, in the College of Music Building, James Street South. The present arrangement of papers will not necessarily be adhered to as a new grouping of subjects may be deemed advisable before the publication of the final programme. We believe that no programme has been issued in the history of the Association more replete with interest from the first item to the last than this promises to be. Every practitioner in the Province can well afford to set aside these days for attendance at Hamilton. The sectional plan of meetings has been adopted, and will be enlarged if the papers will permit of doing so. Sections will meet in the mornings and the afternoons are to be devoted to the addresses and subjects of general interest. The evenings have been set aside for entertainment.

TUESDAY, MAY 26TH.

#### SURGICAL SECTION.

W. Cockburn, Hamilton—"Treatment of Acromio-Clavicular Dislocation."

H. A. Bruce, Toronto—Title to be sent.

N. A. Powell—Title to be sent.

H. B. Lyle, Surgeon to St. Luke's Hospital, New York—"The Hyperemic Treatment."

Clinic and Luncheon at the General Hospital.

#### MEDICAL SECTION.

W. L. Silcox, Hamilton—"Opsonins." Discussion to be led by W. Gibson, Kingston.

W. Goldie, Toronto.

Adam H. Wright, Toronto.

J. Sheahan, St. Catharines.

Benson Cohoe, Assistant Physician, Roosevelt Hospital, New York.

Clinic and Luncheon at the General Hospital.

GENERAL SESSION—2.15 P.M.

President's Address.

Symposium: Arteriosclerosis—

Pathology of—J. J. Mackenzie, Toronto.

Cerebral Manifestations—Colin K. Russell, Assistant in Medicine, University of McGill.

Aortic Arch Manifestations—Thomas McCrae, Associate Professor of Medicine, Johns Hopkins, Baltimore.

Muscle Manifestations—Harry C. Buswell, Associate Professor of Medicine, University of Buffalo.

Visceral Manifestations—J. H. Bauer, Hamilton.

Treatment—H. A. McCallum, London.

Evening—Smoking Concert at the Yacht Club, Burlington Beach.

WEDNESDAY, 27TH.

SURGICAL SECTION—9 A.M.

J. P. Morton, Hamilton—Title to be sent.

F. N. G. Starr, Toronto—Title to be sent.

Edwin Seaborn, London—Title to be sent.

G. T. McKeough, Chatham—"Mechanical Ileus—Operation—Recovery—Remarks on the Treatment."

W. E. Ohmsted, Niagara Falls—Ulcer of the Stomach.

E. E. King, Toronto—Title to be sent.

MEDICAL SECTION.

G. S. Glassco, Hamilton—Title to be sent.

J. R. Stanley, St. Mary's.

R. J. Dwyer, Toronto.

D. Dunton, Paris.

F. Fenton, Toronto.

George Hodge, London—"The Treatment of Pneumonia."

K. C. McIlwraith, Toronto.

R. Ferguson, London.

GENERAL SESSION—AFTERNOON.

Address in Surgery—Charles L. Scudder, Surgeon to the Massachusetts General Hospital.

G. E. Armstrong, Professor of Surgery, University of McGill.

V. P. Gibney, Professor of Orthopedic Surgery, College of Physicians and Surgeons, New York.

Evening Session—Dinner at the Royal Hotel.

THURSDAY, 28TH.

SURGICAL SECTION.

H. Sinclair, Walkerton.

S. H. McCoy, St. Catharines.

A. E. Garrow, Montreal—"Duodenal Ulcer."

H. Sanderson, Detroit.

D. E. Mundell, Kingston—"Pancreatic Cyst."

## MEDICAL SECTION.

D. King Smith, Toronto.

J. T. Fotheringham, Toronto—"Malignant Endocarditis."

A. T. Gordon, Toronto.

Campbell Howard, Assistant in Medicine, University of McGill.

G. B. Cruickshank, Windsor—"The Treatment of Appendicitis."

J. C. Meakins, Pathologist to the Presbyterian Hospital, New York—"Rheumatism."

Dr. George Acheson, Galt.

## AFTERNOON—GENERAL SESSION.

Address in Medicine—Charles G. Stockton, Professor of Medicine, University of Buffalo.

L. G. Cole, Radiographer to the Roosevelt Hospital, New York - Illustrated Lecture.

C. K. Clarke, Toronto—Psychiatry in Relation to General Medicine.

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**HAVE YOU SEEN MARDI GRAS ?**


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BEYOND question. New Orleans presents more attractions to the tourist in search of health, recreation, and enjoyment than any other American city. Beginning with the ball and tableaux of the Twelfth Night Revelers on January 6th, the season of 1908 presents one continuous round of festivities. The fun and frolic of Mardi Gras week commences the evening of Thursday, February 27, with the gorgeous street parade, tableaux, and ball of the Knights of Momus. The finale is on Tuesday, March 3rd, with day parade of Rex, followed by grand tableaux in the evening, and by the mysterious appearance and spectacular parade of the Mystic Krewe of Comus.

## MARDI GRAS WEEK.

Feb. 27.—Knights of Momus, Street Parade at 8 p.m., Tableaux and Ball.

March 2.—Arrival of Rex, 2 p.m., Naval and Military Parade.

March 2.—Krewe of Proteus, Street Parade at 8 p.m., Tableaux and Ball.

March 3.—Rex Parade 10 a.m., Ball 8 p.m.

March 3.—Mystic Krewe of Comus, Street Parade 8 p.m., Tableaux and Ball.

All balls are given at the French Opera House, except Rex, which is held at Washington Artillery Hall.



All parades pass in front of the New St. Charles Hotel, where guests may view them from the terrace adjoining the Palm Garden.

The New St. Charles is modern, fireproof, and first-class. It accommodates one thousand guests on both the American and European plans. Its palm gardens, sun baths, open-air promenade terrace, electric Roman and Turkish baths, make it the finest hotel in Louisiana.

"March, April, and May are especially lovely and attractive, with the blue of Italian skies overhead, the perfume of roses in the air, and the eye dazzled by the beauty and profusion of her tropical flowers."

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### THE COMING INTERNATIONAL CONGRESS ON TUBERCULOSIS.

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THE coming International Congress on Tuberculosis, at Washington, D.C., in September, 1908, will be an unique event in the New World.

This Congress meets once in three years. It has never met in America, and after 1908, will not meet in this country for many years to come.

This Congress will put the people of this country in the relation of host to the leaders of this movement in all parts of the world. It will be a real World's Congress. It will carry on, for three weeks, public discussions of the Tuberculosis problem, led by the most eminent authorities on this subject, in this and other countries. Official delegates will be present from nearly all civilized countries. There will be a course of special lectures, to which all members of the Congress and the general public are invited.

The Congress will be divided into seven sections, giving ample scope for participation of both scientific and lay members.

There will be a great Tuberculosis Exposition, in which one can see what is going on, the world around, in the campaign against Tuberculosis.

There will be Clinics and Demonstrations throughout the whole period of three weeks, giving medical and lay delegates object lessons on the causes and prevention of tuberculosis.

There will be very valuable publications, of which the *Transactions* will be the most important. The transactions of the last Congress are published in three volumes. The proceedings of this Congress will require four volumes. These are free to all members of the Congress, who have paid their membership fee (\$5.00).

The cost of the Congress will far exceed the revenue derived from fees. This cost will be provided for by a special Committee of the National Association for the Study and Prevention of Tuberculosis, which will invest a large sum in the project.

The American membership should number ten thousand persons. There are two classes of members: Active Members, who pay a fee of \$5.00; and Associate Members, who pay a fee of \$2.00, and have all the privileges of membership, except the right to vote and to receive the printed volumes.

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## THE SIXTEENTH INTERNATIONAL MEDICAL CONGRESS.

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THE Sixteenth International Medical Congress will be held in Budapest, the capital of Hungary, under the patronage of His Imperial and Apostolic Royal Majesty the King of Hungary (Emperor of Austria), from the 29th of August to the 4th of September, inclusive, 1909.

It will be the endeavor to establish a strong Canadian National Committee to represent Canadian Medicine at this Conference, and the Executive Committee of the Canadian Medical Association has re-appointed Dr. W. H. B. Aikins of Toronto to act as Secretary of the Canadian National Committee, which appointment has been confirmed by the Executive Committee of the Congress at Budapest. Dr. McPhedran, who was Chairman of the Canadian Committee for the International Medical Congress, held at Lisbon in 1906, will be associated in endeavoring to secure the formation of a strong and representative committee. Any member of the profession in Canada desiring information may communicate with either of the above-named.

Matters of interest pertaining to the Congress will be published from time to time.

The members of the Congress will be (a) certified Doctors who apply and have paid membership fees; (b) experts having paid membership fees, with recommendations from the Canadian National Committee to the Executive Committee of the International Medical Congress, will be admitted as members. The membership fee is \$5.00.

The members will receive the first volume of the transactions of the Congress, and also a volume on the work of the Department of their choice.

The following is taken from the advance announcement received from Budapest:

The Congress is divided into the following departments: Anatomy, Embryology, Histology, Physiology, General and Experimental Pathology, Microbiology (Bacteriology), Pathological Anatomy, Therapeutics (Pharmacology, Physical Hygiene, Balneology), Internal Medicines, Surgery, Obstetrics and Gynecology, Ophthalmology, Diseases of Children, Diseases of the Nervous Sys-

tem, Psychiatries, Dermatology and Syphilography, Urology, Laryngology, Otology, Stomatology (Dental and Oral Surgery), Hygiene and Doctrine of Immunity, Juridical Medicine, Military and Naval Surgery, Navigation Medicines and Tropical Dseases.

The Congress will arrange two festival sessions, an inaugural and a closing one, at which none can take the platform except those summoned by the managing committee or certain representatives of the State after the announcements and customary speeches have been made. During the inaugural session, the managing committee will proclaim, in order of succession, the names of the honorary presidents, and in the closing session the Congress-place.

The subjects of lectures, of reports, and the lecturers, to be selected by the departments; the programme of reports will be published at latest by the 31st December, 1908.

By the 31st January, 1909, reporters have to hand the manuscript of their reports into the office of the Congress, and the members of the representative departments receive them in print, sent to their abodes, by the 31st July.

The corrections will be submitted to the care of the Secretaryship. A legible hand is entreated. The term for the announcement of optional subjects is fixed for the 30th April, 1909.

Lectures announced after the above date will only be included in the order of the day, in one case only, viz., after those announced in due time have been negotiated, and if time admits.

Two or more departments may hold general session, provided their programmes be published at latest by the 31st December, 1908.

Members are permitted to co-operate in the departments of others besides those of their own choice

Only such of the discretionally announced lectures will be published, whose authors have delivered them personally at the Congress, and the copies of which the Executive Committee, in accordance with the decision of the presidency of the department, have determined.

The time allowed for the statement of reports must, in no case, exceed 20 minutes; for other deliveries, 15 minutes; for the discussions, for the former 10, for the latter 5 minutes. The answers of lecturers may be extended to 10 minutes.

The manuscripts of the speeches made on the occasion of both festival sessions are to be handed over to the Secretary-General on the day of the sitting; the manuscript of the lectures and discussions delivered in the departments are likewise to be handed to the managing Secretary of the representative departments, on the day of the sitting, having reference to the lecture or the discussion.

The office of the Congress, in its international intercourse, will

avail itself of the French, German, and English languages. At the festival and general sittings the above-named languages may be used; in the departmental sittings, however, other languages are available; provided one of the members present communicates, within the time fixed for the duration of the festival, the purport of the lecture or discussion in one of the above-named languages.

The whole of the correspondence is to be directed to the office of the Congress. Office of the Sixteenth International Medical Congress Budapest, VIII., Esterhazy-Utca 7.

On the envelopes of letters having reference to the scientific energies of the departments, the department must be written, to which the delivery or enquiry applies; letters of this description, the Secretaryship at once has forwarded to the President of the respective departments.

The term for forwarding applications with reference to the organization of the Congress expires on the 31st December, 1908.

The programme of social gatherings, of making known railway-favors, of accommodation, and of excursions, will be published by the 30th April, 1909.

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#### SMITHSONIAN INSTITUTION—HODGKINS FUND PRIZE.

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THE Hodgkins Fund Prize of \$1,500 is offered by the Smithsonian Institution, Washington, D.C., in accordance with the following announcement:

In October, 1891, Thomas George Hodgkins, Esquire, of Setauket, New York, made a donation to the Smithsonian Institution, the income from a part of which was to be devoted to "the increase and diffusion of more exact knowledge in regard to the nature and properties of atmospheric air in connection with the welfare of man."

In the furtherance of the donor's wishes, the Smithsonian Institution has from time to time offered prizes, awarded medals, made grants for investigations, and issued publications.

In connection with the approaching International Congress on Tuberculosis, which will be held in Washington, September 21 to October 12, 1908, a prize of \$1,500 is offered for the best treatise that may be submitted to that Congress "On the Relation of Atmospheric Air to Tuberculosis."

The treatise may be written in English, French, German, Spanish, or Italian. They will be examined and the prize awarded by a committee appointed by the Secretary of the Smithsonian Institution in conjunction with the officers of the International Congress on Tuberculosis.

The right is reserved to award no prize if in the judgment of the Committee no contribution is offered of sufficient merit to warrant such action.

The Smithsonian Institution reserves the right to publish the treatise to which the prize is awarded.

Further information, if desired by persons intending to become competitors, will be furnished on application.

CHARLES D. WALCOTT,  
*Secretary Smithsonian Institution.*

Washington, February 3, 1908.

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### ITEMS OF INTEREST.

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**The St. Thomas Medical Association.**—At a meeting of the St. Thomas Medical Association, held on the 6th day of December, A.D. 1907, A. C. Brower, M.P.P., East Elgin, and Finlay G. MacDiarmid, M.P.P., West Elgin, met with the association and discussed the Osteopathic Bill, and concluded that the bill should be turned down, as it was not a desirable legislation, and that all persons desirous of practising such or any other branch of medicine should be compelled to pass the regular examination as laid down by the Medical Council.

**Removal of the Firm of Chandler, Ingram & Bell, Limited.**—The trend of business houses in Toronto seems in many instances to be uptown, especially in the case of firms who are identified with University interests. The last concern to recognize the advantages accruing from getting as near as possible to the University and the new Toronto General Hospital (which will soon be erected on College Street) is Chandler, Ingram & Bell, Ltd., who up till the present have been on the north corner of Yonge Street and Wilton Avenue. The new premises they will occupy comprise No. 420 Yonge Street, just one block south of College. This store has recently been completely renovated, and a handsome front put in. The new occupants will now be in a position to handle their increasing business with a despatch that was impossible while cramped in a building down-town that proved not half big enough for them. Chandler, Ingram & Bell will carry in their new warerooms one of the largest stocks in Canada of physicians' supplies, medical books, and hospital furniture.

## The Physician's Library.

### BOOK REVIEWS.

*The Horse: Its Treatment in Health and Disease*, with a complete guide to breeding, training, and management. Edited by PROF. J. WORTLEY AXE, M.R.C.V.S., ex-President of the Royal College of Veterinary Surgeons; late Lecturer at the Royal Veterinary College and at the Agricultural Colleges of Downton and Wye; Chief Veterinary Inspector to the Surrey County Council; Consulting Veterinary Surgeon to the British Dairy Farmers' Association; Author of "The Mare and Foal," "Abortion in Cattle," "Anthrax in Farm Stock," "Examination of Horses as to Soundness," "Glanders: Its Spread and Suppression," "Swine Fever," "Lithotomy, or The Removal of Stone from the Bladder of the Horse." Published in nine volumes. Divisional Volumes I. and II. London, England: The Gresham Publishing Co., 34 Southampton Street, Strand. 1907. Canadian Agents: D. T. McAinsh & Co., Bay and Adelaide Streets, Toronto.

It was with a good deal of pleasure and satisfaction that we recently received Prof. J. Wortley Axe's work on the horse. We had heard from several sources that it was a book with "quality," as one would expect from its subject, and since perusing the first two volumes we heartily agree with that opinion.

Volume I. covers three sections, viz., The Exterior of the Horse, Conformation and Its Defects, and Varieties of the Horse. We would like, firstly, to compliment the publishers upon the splendid type used for this book. It is large, very clear, and, being printed on good paper, makes it easy reading. The illustrations are magnificent and add tenfold to the value of the text.

The author, in section one, divides the anatomy of the horse into eight sub-chapters: The head, upper aspect of the body, posterior extremity, anterior extremity, the latter and inferior region, external genital organs, fore extremity, and the posterior or hind limb. He also subdivides sections two and three in a similar manner, so that all the reader has to do is to refer to a very extensive contents to find his subject.

Under Health and Disease, Dr. Axe considers the horse as he suffers from different maladies, disordered alimentation, acute indigestion, gastritis, chronic dilatation of the stomach, colic, con-

stipation, diarrhea, enteritis, intestinal obstruction, stones, diseases of the liver, hernia, irregularities and diseases of the teeth, the urinary apparatus, and the urine.

Volume II. contains a number of full-page plates of different hackney stallions, Hunter Tennis Ball, harness horses, Shetland ponies, the Arab mare, "Bozra," and American trotters, "Cresceus." and "Star Pointer." There are a large number, too, of text illustrations, which add greatly to the value of the book.

Very few men live to-day—and perhaps especially physicians who, were it not for the faithfulness of "man's noblest friend," might find medical practice considerably harder than it really is—who have not every reason to appreciate a good horse. What ignorance exists, generally speaking, regarding the management of the horse in health and disease! Many a physician lives who, with all his knowledge of disease, and its cure in human beings, knows shamefully little of how one of the lower animals should be treated when sick. We would respectfully suggest to such a brother practitioner that he invest \$2.50 a volume in Prof. Axe's work, as it will be a source of pleasure and interest to him, and incidentally save him many times the sum mentioned in the avoidance of veterinary bills.

W. A. Y.

*Diseases of the Nervous System.* Edited by ARCHIBALD CHURCH, M.D., Professor of Nervous and Mental Diseases and Medical Jurisprudence, Northwestern University Medical Department, Chicago, Ill. An authorized translation from "Die Deutsche Klinik," under the general editorial supervision of JULIUS L. SALINGER, M.D. With one hundred and ninety-five illustrations in the text, and five colored plates. New York and London: D. Appleton & Co. 1908.

This is the latest volume of Modern Clinical Medicine published by Appletons, and it is one of the most important of that series, as it deals in a complete and comprehensive manner with the most prominent subjects in neurology. No less than twenty leading German writers of large experience have been induced to contribute the results of their investigations into various forms of nervous diseases, and the compilation of their contributions enables the editor to produce a large and handsome volume containing the most recent known facts on these subjects. The study by Rothman on the Macroscopic Anatomy of the Central Nervous System, with special reference to the physiology of the brain, is particularly clear and interesting, while the article by Schuster on General Neurological Diagnosis, including Lumbar Puncture, and the essay by Wernicke on the System Complex of Aphasia are both equally lucid and instructive. The section on Neuritis and Polyneuritis, by Cassirer, and that on Neuralgia, by Eichhorst,

would of themselves alone make a work of great interest and value to almost any general practitioner; and when it is remembered that the whole volume represents the combined research of so many other brilliant men in addition to those already mentioned, it will be ungrudgingly acknowledged that the aim of the editor and the authors to present a complete picture of nervous diseases has been satisfactorily accomplished.

N. H. B.

*Gonorrhœa: Its Diagnosis and Treatment.* By FREDERICK BAUMANN, Ph.D., M.D., Professor of Genito-Urinary Diseases of the Reliance Medical College; Instructor in Dermatology and Venereal Diseases in the College of Physicians and Surgeons, Chicago. Pp., 200. Illustrations, 52. New York and London: D. Appleton & Company.

This work Dr. Baumann presents as a concise digest of his teaching in the medical department of the University of Illinois. It were almost better named a Plea for the Instrumental Treatment of Gonorrhœal Urethritis, for 7 of the 200 pages of reading matter deal with instrumental manipulations, and 48 of the 52 illustrations are cuts of various urethral dilators, sounds, etc.—an imposing armamentarium, indeed, with which to approach and destroy the elusive gonococcus. After a few chapters on the anatomy of the urethra and pathology, and diagnosis of gonorrhœa, he plunges "in media res" and following Oberlander's classification, considers gonorrhœal urethritis under two divisions—the soft and hard infiltrations. The latter class is again subdivided into infiltrations of the first degree—where glandular infection is prominent; second degree, a more marked condition of the first; and, third degree, or strictures.

In treatment, he decries the use of the silver compounds, argyrol, protargol, as being chemically inert, and bespeaks his preference for silver nitrate, potassium permanganate, zinc sulphate, nitric acid, as weak injections. He also favors balsamics internally. Perhaps the author is at his best when describing the use of his instruments, and his remarks on the treatment of hard infiltrations of the third degree, strictures, are good. His plan is gradual dilation over a period of weeks, using Kollmann's four-pronged irrigating dilator. He advises frequent inspection of the urethral mucous membrane by means of the urethroscopé, although he denies himself the opportunity thus afforded for instillations or topical applications. Twenty-five pages are rightly devoted to gonorrhœal prostatitis, and the usual forms of treatment discussed, and then the rest of the pages treat in a sketchy manner of epididymitis, vesiculitis, gonorrhœa in the female, and gonorrhœal arthritis.

In the treatment of arthritis, he makes timely mention of the opsonic index and treatment with bacterial vaccines. He uses



Bier's congestive hyperemia in arthritis, and, save the mark! in epididymitis; but this should not surprise us, for we may yet hear of its application by some misguided enthusiast to even a varicose ulcer.

This little work on the whole repays the reading. It contains no surgical heresies, and emphasizes the usual gonorrhoeal axioms in a helpful manner.

O. T. D.

*The Port of Missing Men.* By MEREDITH NICHOLSON, author of "The House of a Thousand Candles," "The Main Chance," "Zelda Dameron," etc. With illustrations by CLARENCE F. UNDERWOOD. Toronto: McLeod & Allen, Publishers.

This novel should be particularly agreeable to American readers, owing to the high character and personal charms of the heroine, Shirley Clarborne, and the democratic leanings of the hero, Count von Stroebel.

The leading characters are well drawn. The hero, in spite of apparent indefiniteness of purpose, comes out with flying colors at the end. We confess to a liking for the little cavalryman, Oscar; there is no indefiniteness about him. The more important villains escape death in America, probably to win it in Europe. The descriptions of Virginia mountain scenery are most charming. The author is at his best in describing American characters and scenery. Several fine illustrations add to the value of the book.

J. J. C.

*The Principles and Practice of Modern Otolology.* By JOHN F. BARNHILL, M.D., Professor of Otolology, Laryngology, and Rhinology, Indiana University School of Medicine; and ERNEST DE W. WALES, B.S., M.D., Associate Professor of Otolology, Laryngology, and Rhinology, Indiana University School of Medicine. Octavo of 575 pages, with 305 original illustrations, many in colors. Philadelphia and London: W. B. Saunders Co. 1907. Cloth, \$5.50 net; Half Morocco, \$7.00 net. Canadian Agents: J. R. Carveth & Co., Ltd., Toronto.

The quality of the paper, the good type, the number and excellence of the illustrations, at once attract attention, yet an excuse for the appearance of a new work on the diseases of the ear may at first seem somewhat difficult to find. The authors advance as one their desire to modernize the subject. If any subject has been modernized it is that of otology. Unfortunately the modernizing has practically been confined to the diseases of the mastoid process, and the complications resulting therefrom. Fully one-third of the book is given up to this subject. If the same happy advances had been made in the non-suppurative diseases of the middle ear, one might be more proud of the modernizing. If we have not advanced in the treatment, we have made marvellous

strides in our knowledge of how to prevent middle-ear disease. The real treatment is to prevent them. Many a patient receives a deal of treatment which is just as satisfactory to his physician as to him, and that's mighty little. A little more time spent on the physical examination would save the patient's time and purse, and the physician's reputation. Far too little is known of the functional testing of the ear, a subject into which the authors enter fully.

M.

*Wellcome's Photographic Exposure Record and Diary, 1908.*—Wellcome's Photographic Exposure Record and Diary banishes the greatest obstacle to success in photography—that of correctly estimating exposure. The actual determination of correct exposure is made by means of an ingenious little mechanical calculator attached to the cover of the book. A single turn of a single scale is all that is necessary. This little instrument—with its accompanying tables giving the value of the light at all times of the day and year, and its list of the relative speeds of more than 180 plates and films—is alone worth more than the cost of the whole book. It certainly saves dozens of plates which would otherwise be wasted owing to errors in exposure.

*Trained Nursing a Modern Heroism Little Heralded.*—No music, flags, or cheering, but the fight is with the grimmest and most terrible of all foes. The trained nurse goes into battle encouraged by none of the blood-stirring incitements of the soldier. She is often entirely alone; her struggle must be quiet, and her antagonist is grim and terrible and ever-watchful, because it is Death itself. Suppose it is you yourself who are suddenly smitten in the midst of your life and work, says Anne O'Hagan, in the February *Delineator*. With the coming of the trained nurse you feel infinite relief and thanksgiving. You are no longer obliged to struggle alone, to watch the door alone lest that Other One enter. The nurse, calmest of warriors, least grim of sentinels, sits beside your bed and will keep the vigil for you. You transfer the battle to her. For yourself, you will lie still and think not of the combat before you, not of the turmoil behind you—that whirling, dusty conflict of the world which was so important a little while ago—but of the great, important things—earth and its greenness, the wide, white country skies on moonlight nights, the flash of bluebirds' wings in the September sunshine, all the daily miracles you had forgotten to watch when you were hurrying to those manifold appointments of yours. Now you are in the region where only "the mightier movement sounds and passes, only winds and rivers, only life and death."