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MISSING

The Canada Lancet

VOL. LII.

TORONTO, JULY, 1919

No. 11

EDITORIAL

ANNUAL MEETING OF THE ONTARIO MEDICAL COUNCIL.

The issuing of orders for various forms of alcoholic stimulants occupied a good portion of the time of the Medical Council. Dr. E. E. King very properly remarked that the Ontario Temperance Act had made the medical profession an aggregate of bar tenders.

After due consideration the following names were ordered to be removed from the Register of licensed practitioners, because of abuse of the privilege of ordering liquor for patients. The names are: Dr. Percy N. Gardiner, Windsor; Dr. F. N. Cherniak, Windsor; Dr. R. Rheume, Windsor; Dr. A. Rupert, Toronto; and Dr. H. H. Moorehouse, Toronto.

The following practitioners were temporarily suspended for a period of three months for violation of the Ontario Temperance Act: Dr. D. McEdwards, Hamilton, and Dr. E. D. Kelly, Toronto.

The following were found not to have committed a breach of the Ontario Temperance Act as alleged: Dr. J. Anderson, Hamilton; Dr. J. P. Rankin, Stratford; Dr. J. A. Beçard, North Bay; Dr. A. V. Mitchell, Toronto; Dr. G. A. Elliott, Toronto; Dr. W. B. Hopkins, Hamilton; Dr. J. A. Langrill, Hamilton; Dr. A. T. Langrill, Hamilton; and Dr. A. B. Welford, Woodstock.

Dr. Stewart, Fort Wiliam, moved and Dr. H. S. Griffin, Hamilton, seconded, a resolution "that the Ontario Medical Council desires to express strong disapprobation of the O. T. A. whereby the medical profession of Ontario is made the means through which the public may obtain alcoholic liquor, and that a copy of this resolution be forwarded by the Registrar of the Council to the Government and to the Board of License Commissioners."

This motion was discussed very fully by Drs. Stewart, Griffin, King, and Hamilton. It was finally agreed to withdraw the motion, pending the coming referendum and the subsequent legislation.

A motion by Dr. King requesting the Government to make some provision for the young medical men who when enlisting in the Army Medical Corps had under one year's experience, or who had just graduated, was passed. The resolution pointed out that these men had sacrificed much in a professional way. They had become entirely out of touch with many branches of medical work, and it was only in justice to themselves as well as to the community that they be given an opportunity to brush up on their work. Their work in the army had not given them a great deal of general experience, because, presuming they were in the surgical branch, they would have had no experience with medicine, and vice versa. A grant of \$500 for each man was asked for in order that he might be able to take a post-graduate course.

Dr. King had asked the Militia Department how many medical men were entitled to this consideration. He had been informed curtly, he said, that it was unable to give the information. The resolution will be presented by members of the council either to the Premier or to the Minister of Militia.

Dr. Addison brought forward the proposition of establishing a post-graduate course in medicine in Canada, which would preferably be under the College of Physicians and Surgeons. A committee has been appointed to go into the matter and report on the advisability of the establishment of such a course.

A motion, proposed by Drs. J. C. Connel and Addison, that the Executive of the Council be authorized to complete the agreement with the Medical Council of Canada to substitute the examinations of the Dominion body for those of the Ontario Medical Council, beginning with 1920, was defeated. Similar action was taken with regard to an amendment under which the substitution would not take effect until the Dominion examinations had been adopted by all other Councils.

On motion of Dr. Brodie, seconded by Dr. G. A. Routledge, of Lambeth, it was decided to negotiate with the Executive of the Ontario Medical Association with a view to establishing a laboratory for the testing of drugs and other preparations sold to medical men. In this connection Dr. Brodie mentioned complaints which had reached him that since the outbreak of war some drugs have not given the required action. Dr. A. T. Emerson, Goderich, spoke of two instances, the first of morphine tablets labelled to contain 1-4 grain, which on analysis showed only 1-8th, and the second sodium phosphate, labelled to contain 120 grains to the ounce, which showed only 30 and a fraction.

The council supported, on motion of Dr. E. T. Kellam, the efforts of Dr. McCullough, provincial M.O.H., to have restrictions on the manufacture of salvarsan and importation restrictions on other preparations used in the treatment of venereal diseases removed.

Subject to the approval of the Solicitor of the Council, the meeting favored assenting to the request of the Canada Council that the Canada Medical Act be amended so that reciprocal relations could be entered into with Britain and other countries.

Dr. Robert Ferguson, London, the ex-president, presented the report on Council examinations, showing 20 out of 27 candidates passed in the fall tests of 1918, and 69 out of 93 passed the spring tests of this year.

Sir James Grant moved and Dr. Farncomb seconded two resolutions approving of the action of the Federal Parliament in passing the Health Act, creating a department with a deputy minister in charge of its working; and the other calling attention to the great and responsible duties, in the war just closed, performed by our men in the profession from Canada, who should have recognition by the Conferring of the new order of honors for the British empire. These were approved as they well deserved.

Sir James Grant attended his 52nd meeting of the Council, and the 50th since he was president.

The officers of the college for the coming year are: President, Dr. A. T. Emerson, Goderich; vice-president, Dr. G. A. Routledge, Lambeth; registrar-treasurer, Dr. H. Wilberforce Aikins; counsel, H. S. Osler; official stenographer, Geo. Angus; auditor, H. J. Welsh; prosecutor, John Fyfe.

DOBELL'S SOLUTION.

Somebody (God forgive him) recommended spraying of the nose and throat with Dobell's solution as a prophylactic for Spanish influenza. Apparently every newspaper in the United States has printed this suggestion.

Dobell's solution is of such slight value as an antiseptic that we feel it our duty to warn the profession against putting their faith in it. As every doctor knows, this is a weak alkaline solution, containing borax and bicarbonate of soda, in a little glycerin and much water, rendered feebly antiseptic by the addition of three parts per 1,000 of phenol; in other words, it contains 1/3 of 1 per cent. of carbolic acid. The only value a solution of this kind could have would be for the removal of mucous secretions from the nose. For this purpose it might have some slight merit.

ORIGINAL CONTRIBUTIONS

SHAKESPEARE AS AN AID IN THE ART AND PRACTICE OF
MEDICINE.*

BY SIR ST. CLAIR THOMPSON, M.D., F.R.C.P., F.R.C.S., London, Eng.

MEDICINE IN THE 16TH CENTURY.

To understand the medicine of Shakespeare we must briefly recall the stage of our science and the position of the profession in those days. It was just evolving out of the chaos of unlicensed and irregular practice. The College of Physicians had only been founded in 1518, and an Act of Parliament had united the surgeons and the barbers in 1540. Francis Bacon did not publish his *Novum Organum* till 1621; William Harvey did not make public his great discovery until 1628; medicine was still based on tradition, and truth was sought in the writings of Galen instead of by searching out nature by experiment. The College of Physicians in the University of Paris is credited in these days (1603, to be exact) with an exhortation to all physicians "that they will constantly continue in the doctrine of Hippocrates and Galen."

The *physician's fee* is mentioned in Shakespeare—

Thy sacred physic shall receive such pay
As thy desires can wish.

Pericles, v, i.

but the amount is nowhere specified.

Mr. D'Arcy Power has investigated the question of "The Fees of our ancestors," and comes to the conclusion that the "noble" and afterwards the "angel" (each worth from 6s. 8d. to 10s.) were looked upon as the customary fee during the seventeenth century. § At the Restoration in 1660 the doctors' fee was raised to 21s. on the introduction of the new coinage of a "guinea". This coin ceased to be minted in 1813, and, although non-existent, it is still used by doctors, barristers, and horse-dealers, and sometimes by the art-dealers and tailors. If the fee, in Shakespeare's time, was anything between ten shillings and the still customary guinea, it is remarkable, as the purchasing power of money in that age was at least five times what it is now. † Besides, the customary 6s. 8d. of the lawyer was, in Shakespeare's time, only 3s. 4d.—just half. ‡

* Read at the meeting of the Ontario Medical Association, 28th May, 1919.

§ 'Janus,' 1909. Harlem: De Groen F. Bohn.

† *Shallow*. How a score of ewes now?

Silence. Thereafter as they be; a score of ewes may be worth ten pounds.

Henry IV, Part II, iii, 2.

(20 good ewes in England would now be worth 50 pounds).

‡ *Clown*. As fit as ten groats is for the hand of an attorney.

All's Well that Ends Well, ii, 2.

It is not surprising, therefore, that physicians of that period earned a good income, and that their wealth added to their dignity and social status. William Harvey (1578-1657), a contemporary of Shakespeare, although never a "fashionable physician", left behind him the sum of £20,000, equal to £100,000 of our money. Physicians rode in coaches and were clothed in velvet. It was doubtless the embryonic condition of the science of medicine in those days, and the reliance of physicians on authority, which impelled them to secure their intellectual and social position by their general culture. Many of them studied abroad and acquired modern languages, and classical education, in the absence of natural science, formed the foundation of the doctor's learning. Shakespeare is therefore more likely to reflect the crude practice of the time, so far as the science of medicine is concerned, but much more of that human art on which it had then, perforce, to depend, and in which we are more apt nowadays to be defective.

When we remember that, in 1607, his eldest daughter, Susanna, married Dr. John Hall, of Stratford, we readily perceive where Shakespeare had plentiful opportunities for becoming acquainted with the life, habits, and ways of thought of a medical man, and picking up a fairly intimate knowledge of the practice of medicine 300 years ago. Dr. John Hall was no starving apothecary. He is styled "gentleman" in the marriage register; he accompanied Shakespeare to London on business in 1614, and he was so well acquainted with Latin that in that tongue he described a number of his cases, which were afterwards translated and published by James Cooke in 1657, with the title, *Select Observations on English Bodies, and Cures both Empiricall and Historicall, Performed on Very Eminent Persons in Separate Disorders*. The register of his death in 1635 refers to him as a *medicus peritissimus*.

THE PHYSICIANS IN THE PLAYS.

Out of 36 plays, medical characters are represented seven times: (i) Dr. Caius in the *Merry Wives of Windsor*; (ii) an English doctor, and (iii) a Scottish doctor in *Macbeth*; (iv) Dr. Butts in *Henry VIII*; (v) Cornelius in *Cymbeline*; (vi) the physician in *King Lear*; and (vii) Cerimon in *Pericles*. There is no character to represent a surgeon.

(i) Dr. Caius is treated more as a figure of fun than as a regular physician, and has to put up with impertinences that no self-respecting physician would tolerate for a moment. Thus, he boasts of his surgical skill, and threatens to remove the testicles of Sir Hugh Evans for interfering with his love affairs. In return Evans twice threatens to knock his "urinals" about his head, and Dr. Caius has to submit to being contemptuously referred to as "bully stale", "a Castalion king Urinal", and "Monsieur Mock-Water". ("Stale" in this phrase is another word for

urine. Antony, during the hardships of war, drank "the stale of horses". —*Antony and Cleopatra*, i, 4). It is unthinkable that in this picture Shakespeare intended to portray the learned and dignified Dr. Caius, President of the College of Physicians, physician to three English Sovereigns, and benefactor of Gonville and Caius College, Cambridge. The name may have been adapted from the eminent physician of Queen Elizabeth, while the personality of the character might have been suggested by that of Sir Theodore Mayerne, a Frenchman (according to some, a Swiss), who was expelled from the College of Physicians in Paris, and settled in London, where he became eminent. That Shakespeare meant to represent a quack, and not the learned Dr. Caius, is shown by Sir Hugh Evans referring to him as "Master Caius, that calls himself Doctor of Physic." In a similar way, the name of Dr. Cornelius in *Cymbeline* was possibly suggested by that famous physician of Charles V, and simply adapted for dramatic purposes.

(ii) The English doctor in *Macbeth* makes the speech referring to the curing of scrofula by the royal touch:—

Doctor. Ay, Sir; there are a crew of wretched souls,
That stay his cure: their malady convinces
The great assay of art; but, at his touch,
Such sanctity hath Heaven given his hand,
They presently amend.
. . . . But strangely-visited people,
All Swoln and ulcerous, pitiful to the eye,
The mere despair of surgery, he cures.

Macbeth, iv, 3.

To show how long this superstition endured, we may remind ourselves that Dr. Samuel Johnson (1709-1784) was "touched" for scrofula by the royal finger of Queen Anne.

(iii) The Scottish doctor in *Macbeth* is often quoted as an illustration of native caution. ("I think but dare not speak".) It has been suggested that he was a timid man, declining to treat the case, saying: "This disease is beyond my practice", and trying to pass Lady Macbeth on to another court functionary as "more needs she the divine than the physician". It has also been suggested that this astute Scotch medico did not wish to be mixed up with disagreeable State secrets ("Foul whisperings are abroad"), and that, alarmed at the terrible secrets disclosed to him, he regarded Lady Macbeth as a great criminal and declared himself unable to minister to a mind diseased.

I cannot see that there is anything surprising in Macbeth's oft-quoted expression of contempt for physick, nor that it conveys any disparagement of the art and science of medicine. To "pluck from the memory a rooted sorrow; raze out the written troubles of the brain", and "cleanse the stuff'd bosom of the perilous stuff which weighs upon the heart", what treatment could possibly be better or could ever take pre-

cedence of that by auto-suggestion, which is only now being carefully studied, although 300 years ago Shakespeare proposed it when he makes the doctor say, "Therein the patient must minister to himself". Macbeth, unlike the thoughtful Cassius, did not realise that—

The fault, dear Brutus, is not in our stars,
But in ourselves.

Julius Caesar, i, 2.

Being an unthinking man of action, little given to reflection, he calls for his armour and his staff, having said he will "throw physic to the dogs" since his doctor can do nothing better than propose to rouse his wife's own self-control, although he had already advised to "Remove from her the means of all annoyance, and still keep eyes upon her". Doubtless, like so many of our patients now-a-days, Macbeth thought that his doctor would touch the spot and the patient be made whole from that hour, and had himself proposed (just as our patients still do!) "Some sweet oblivious antidote". No wonder that the worthy physician exclaimed—

Were I from Dunsinane away and clear,
Profit again should hardly draw me here.

Macbeth, v, 3.

(iv) In the 5th Act of *Henry VIII* the Dr. Butts represented is no doubt the Dr. William Butte, Fellow of Gonville Hall, Cambridge, and Fellow of the College of Physicians, who lies buried in Fulham Church. He is in such good standing at Court that Cranmer exclaims when he passes—

'Tis Butts,
The king's physician: as he past along,
How earnestly he cast his eyes upon me!
Pray heaven, he sound not my disgrace!

Act v, Sc. 2.

The friendly and intimate relations of the doctor with his sovereign are shown in the following quotation—

Butts. I'll show your grace the strangest sight,—
King Henry. What's that, Butts?
Butts. I think your highness saw this many a day.
King Henry. Body o' me, where is it?
Butts. There, my lord;
The high promotion of his grace of Canterbury;
Who holds his state at door, 'mongst pursuivants,
Pages and footboys.

Henry VIII, v, 2.

(v) Cornelius in *Cymbeline* plays with honour and astuteness a difficult part when the Queen asks him for poison. He suspected her, though she said she was only going to practise on the lower animals. For this he reprov'd her with dignity, and, as he could not refuse a royal command, he only gave her a comparatively innocent drug.

(vi) The physician in *King Lear* plays his part well and sympathetically, although it is a difficult one.

(vii) Cerimon in *Pericles* is both a physician and a nobleman, so that the good social status of the medical man is here accepted and illustrated. Shakespeare had the example of two peers of his own time who practised medicine. One was a Marquis of Dorchester, who at the age of 43 applied himself to the study of medicine, and acquired great proficiency therein. It is recorded that "he esteemed his Fellowship in the College, an honor only second to that of his peerage, and maintained that his colleagues were the most learned society in the world", and that he bequeathed to them his library of the value of £4,000, being the best at that time in any private hand in the nation.* Another English nobleman who practised medicine was "Edmund, Earl of Derby, who dyed in Queen Elizabeth's days, was famous for chirurgerie, bone-setting, and hospitalitie."†

No nobler panegyric of our profession could be written than that put in the mouth of Cerimon—

Cerimon. I held it ever,
 Virtue and cunning were endowments greater
 Than nobleness and riches: careless heirs
 May the two latter darken and expend;
 But immortality attends the former,
 Making a man a god. 'Tis known, I ever
 Have studied physic, through which secret art,
 By turning o'er authorities, I have
 (Together with my practice) made familiar
 To me and to my aid, the blest infusions
 That dwell in vegetives, in metals, stones;
 And can speak of the disturbances that Nature
 Works, and of her cures; which doth give me
 A more content in course of true delight
 Than to be thirsty after tottering honour,
 Or tie my pleasure up in silken bags,
 To please the fool and death.

Pericles, iii, 2.

Not only does Shakespeare express his high ideal of the physician's calling, but he repeatedly indicates his belief in the efficacy of our art.

But I consider,
 By medicine life may be prolong'd, yet death
 Will seize the doctor too.

Cymbeline, v, 5.

O, mickle is the powerful grace that lies
 In herbs, plants, stones, and their true qualities:
 For naught so vile that on the earth doth live,
 But to the earth some special good doth give;
 Nor aught so good, but, strain'd from that fair use,
 Revolts from true birth, stumbling on abuse.

Romeo and Juliet, ii, 3.

* Bucknill, 'Shakespeare's Medical Knowledge,' London, 1860, p. 30.

† Ward's Commonplace Book, p. 161.

He eulogizes the study of natural science and the benefits it will confer:—

All you unpublish'd virtues of the earth.

All bless'd secrets,

King Lear, iv, 4.

Give physic to the sick, ease to the pain'd.
The patient dies, while the physician sleeps.

Lucrece, 129-130.

With good advice and little medicine.

Henry IV, Part II, iii, 1.

An occasional jibe against our profession is of course met with:
Kill the physician, and the fee bestow
Upon the foul disease.

King Lear, i, 1.

If Shakespeare did not put an occasional joke if this sort into the mouths of his characters, neither he nor they would be true to life.

QUACKS.

Irregular practitioners flourished abundantly in the Shakespearean period and are portrayed in several plays. In the *Comedy of Errors* there is the wretched Pinch, who, although described as a schoolmaster, assumed the functions of an alienist physician. He is described as—

A hungry lean-fac'd villain,
A mere anatomy, a mountebank,
A threadbare juggler, and a fortune-teller,
A needy, hollow-ey'd, sharp-looking wretch,
A living dead man.

Act v, Sc. 1.

In *Romeo and Juliet*, Friar Lawrence combines the profession of the church with the administration of drugs of his own collecting.

That there were irregular female practitioners is shown by the proposition, in reference to Malvalio, to "Carry his water to the wise woman" (*Twelfth Night*, iii, 4).

Another female empiric is Helena in *All's Well that Ends Well*. She inherited the prescription of her father, Gerard de Narbon, who had been famous in his day as a physician, and did not hesitate to try a remedy on a royal personage, who at first received her with polite refusal—

We thank you, maiden;
But may not be so credulous of cure,
When our most learned doctors leave us, and
The congregated college has concluded
That labouring art can never ransom nature
From her inaidable estate—I say, we must not
So stain our judgment, or corrupt our hope,
To prostitute our past-cure malady
To empirics, or to dissever so
Our great self and our credit, to esteem
A senseless help, when sense past help we deem.

Act 2, Sc. 1.

This shows great appreciation of the authorised practitioners, and although the King's objections were overcome, we must remember that even the most philosophic and best qualified amongst us are apt to turn to any quack if "our most learned doctors leave us."

The "congregated college" doubtless refers to the College of Physicians. The calling in of this irregular female practitioner is partly explained by remembering that in Elizabethan times the physician, in order to save his own reputation, was very apt to give up attending his patient and cease all efforts at relief as soon as he thought the case was incurable. This custom still lingers in some parts of Europe.

It is pointed out by L. M. Griffiths that these quacks and medical mountebanks are found in the earlier plays and that the first practitioner of medicine for whom Shakespeare does not entertain contempt is the physician in *King Lear*. Now *King Lear* was written about 1616; and, as I have already pointed out, Shakespeare's daughter Susanna was married in 1607 to Dr. Hall, whose position and worth would give the poet the basis for depicting a respectable physician. The consideration and respect given to him by Lear's good daughter, Cordelia, are very different from the contempt and impertinences meted out to Dr. Caius, and Cordelia shows her confidence in him by saying—

Be govern'd by your knowledge, and proceed
I' the sway of your own will.

Act iv, Sc. 7.

SHAKESPEARE'S GENERAL MEDICAL KNOWLEDGE.

Shakespeare shows an astonishing familiarity with many purely professional or technical matters. He manifests an intimate knowledge of the history of medicine by his mention of such names as Galen and Paracelsus (*All's Well that Ends Well*, ii, 3), and of Æsculapius and Hippocrates (*Merry Wives of Windsor*, ii, 3, and iii, 1). "The most sovereign prescription in Galen is but empiric physic" (*Coriolanus*, ii, 1). He employs medical terms that no ordinary playwright would know how to introduce—

I have *tremor cordis* on me,—my heart dances;
But not for joy—not joy.

Winter's Tale, i, 2.

O, how this mother swells up towards my heart!
Hysterica passio,—down, thou climbing sorrow,
Thy element's below!

King Lear, ii, 4.

His reference to the *pia mater* in three different plays (*Love's Labour's Lost*, iv, 2; *Twelfth Night*, i, 5; *Troilus and Cressida*, ii, 1) is remarkable, even although he sometimes employs it to include the whole brain.

Thou hast spoke for us, madonna, as if they eldest son should be a fool, whose skull Jove cram with brains! for here he comes, one of thy kin, has a most weak *pia mater*.

Twelfth Night, I, 5.

Not few, outside students of anatomy, could have ever heard of the *pia mater*, and the mode in which Shakespeare may have obtained his knowledge of it is ingeniously suggested by Benjamin Ward Richardson ('Lancet,' October 20th, 1888, p. 757). He points out that an imperial quarto volume of 1,111 pages on Anatomy, by Helkiah Crooke, was published in 1615. In it the *pia mater* takes a very distinct place, and the brain is described with a clearness which would excite no small wonder in one who for the first time studied the book, even in our day. Now, this book was printed by W. Jaggard, of the Barbican in London, and this same man was the printer for Shakespeare. His printing office was within easy walking distance of the Globe Theatre, and the plates and letterpress of Crooke would for long seasons be the most remarkable press work of the time. The indefatigable playwright would often repair to Jaggard's office on his own business, and this work on anatomy would readily appeal to his ever-absorbing brain.

Considerable notice is often taken of the diseases which are referred to through the pages of Shakespeare. The most frequent of these are ague (evidently as common formerly as it is rare now-a-days), rheumatism, plagues, pestilence, fever, measles, the sweat, and leprosy. More casual mention is made of apoplexy, boneache, colic, consumption, convulsions, cramps, dropsy, ecstacy, epilepsy, gout, green sickness, somnambulism, tetter and visual spectra; but there seems to be nothing remarkable or worthy of any wonder in the simple mention of the affections. Our present-day literature could show us many references to appendicitis, neuralgia, neurasthenia, tuberculosis, gout, fever, tonsils, adenoids, and so forth. The mere mention of these diseases in Shakespeare is of no moment; what should give us pause are the frequent flashes of genius which are revealed by the insight sometimes given of the appearances, character, and progress of the disease, or of the patient. Thus, the wise distinction between early disordered function and established disease is well shown in the following dialogue, which also accentuates the prime importance of sound advice and little medicinal treatment—

King Henry. Then you perceive, the body of our kingdom,
How foul it is; what rank diseases grow,
And with what danger, near the heart of it.

Warwick. It is but as a body, yet, distemper'd,
Which to his former strength may be restor'd,
By good advice, and little medicine.

Henry IV, Part II, iii, 1.

That the poet should so often ascribe *mental characteristics to pathological states* is surprising when we remember the age in which he lived.

King Lear makes excuse for the behaviour of his son-in-law and shows us the wisdom—nearly 300 years before our educationalist days—of attributing much of conduct to physical conditions—

No, but not yet;—may be, he is not well:
 Infirmary doth still neglect all office,
 Whereto our health is bound; we are not ourselves,
 When nature, being oppress'd, commands the mind
 To suffer with the body: I'll forbear;
 And am fallen out with my more headier will,
 To take the indispos'd and sickly fit
 For the sound man.

King Lear, ii, 4.

Even when mad, poor Lear seeks for a material explanation of his daughter's ingratitude—

Then let them anatomize Regan; see what breeds about her heart. Is there any cause in Nature, that makes these hard hearts.

King Lear, iii, 6.

Constance. For I am sick and capable of fears.

King John, iii, 1.

The idea that *two disease cannot co-exist*—responsible for the introduction of setons and issues—is doubtless referred to when Benvolio thus counsels Romeo—

Take thou some new infection to thy eye
 And the rank poison of the old will die.

Romeo and Juliet, i, 2.

Dr. Emery points out to me that Shakespeare frequently alludes to this idea—

Falsehood, falsehood cures as fire cools fire.

King John, iii, 2.

One fire drives out one fire, one nail one nail.

Coriolanus, iv, 7.

and that there is a certain amount of truth in the belief that certain affections disappear when the patient is suffering from an acute infective disease. Modern bacteriology supports the idea, for we know that there are non-specific actions of vaccines (such as the increase in the amount of antitrypsin in the blood) which may lead to beneficial results, even although the vaccine used is not made from the organism which is actually causing the infection.

Evidently Shakespeare was quick to recognise a *deposit of lithates*—

Lucio. . . . But it is certain, that when he makes water, his urine is congealed ice; that I know to be true; and he is motion ungenerative; that's infallible.

Measure for Measure, iii, 2.

We cannot altogether accept Shakespeare's view that *fat people* are wanting in wits—

Fat paunches have lean pates; and dainty bits
 Make rich the ribs, but bankrupt quite the wits.

Love's Labour's Lost, i, 1.

Indeed he balances this with the well-known opinion of Cæsar that—

Yon'd Cassius has a lean and hungry look;
He thinks too much; such men are dangerous.

Julius Cæsar, i, 2.

Falstaff gives sound direction for the measures to be adopted against the *embonpoint* of success—

If I do grow great, I'll grow less; for I'll purge, and leave sack, and live cleanly,
as a nobleman should do.

Henry IV, Part I, v, 4.

Digestion.—The dictum that—

Things sweet to taste prove in digestion sour.

Richard II, i, 3.

requires some saving clauses. But the following regulations in regard to appetite, undisturbed meals, and good digestion are absolute:—

Unquiet meals make ill digestions.

Abdess in *Comedy of Errors*, v, 1.

In food, in sport, and life-preserving rest,
To be disturb'd, would mad or man or beast.

Abdess in *Comedy of Errors*, v, 1.

Now good digestion wait on appetite,
And health on both!

Macbeth, iii, 4.

Many will endorse the recommendation of a stroll in the open air soon after meals, as an aid to digestion. Patroclus, addressing, on behalf of his chief, the princes who made an afternoon call, says,—

He hopes it is no other
But, for your health and your digestion sake,—
An after-dinner's breath.

Troilus and Cressida, ii, 3.

The green sickness, *i.e.*, *chlorosis*, is mentioned very frequently—

She never told her love,
But let concealment, like a worm i' the bud,
Feed on her damask cheek: she pin'd in thought,
And, with a green and yellow melancholy,
She sat, like patience on a monument.

Viola in *Twelfth Night*, ii, 4.

Pox upon her green-sickness for me.

Pericles, iv, 6.

You green-sickness carrion.

Romeo and Juliet, iii, 5.

A kind of male green-sickness.

Henry IV, Part II, iv, 3.

This shows that he appreciated that chlorosis was usually a disease of females and rare in males, although it also affects Lepidus—

Cæsar is sad; and Lepidus,
Since Pompey's feast, as Menas says, is troubled
With the green-sickness.

Antony and Cleopatra, iii, 2.

It is surprising that a lay writer should know that *malaria* is often followed by wasting—

Cæsar was never so much your enemy,
As that same ague which hath made you lean.
Julius Cæsar, ii, 2.

Shakespeare recognised a *goitre* and knew of its greater frequency in certain mountainous districts:—

There were mountaineers
Dew-lapp'd like bulls, whose throats had hanging at them
Wallets of flesh.
Tempest, iii, 2.

The *crisis* seen in some diseases is well used in a medical simile—

Pand. Before the curing of a strong disease,
Even in the instant of repair and health,
The fit is strongest; evils that take leave,
On their departure most of all show evil.
King John, iii, 4.

The *well known tests of life* are thus described—

I know when one is dead and when one lives;
She's dead as earth—lend me a looking glass;
If that her breath will mist or stain the stone,
Why, then she lives.
King Lear, v, 3.
This feather stirs, she lives!
King Lear, v, 3.

A large number of HERBS AND DRUGS are mentioned by Shakespeare in his plays. Mr. C. J. Thompson, of the Wellcome Historical Medical Museum, has supplied me with the following list:

Aconite.	Fennel.	Pomegranate.
Aloes.	Fumitory.	Poppy.
Broom.	Ginger.	Ratsbane (Arsenic).
Burdock.	Hemlock.	Rhubarb.
Caraway.	Henbane.	Rosemary.
Chamomile.	Lavender.	Rue.
Civet.	Mandragora.	Saffron.
Clôves.	Marsh Mallows.	Senna.
Colocynth (Coloquin- tida).	Musk.	Violet.
Dulcamara.	Mustard.	Willow.
Elder.	Nutmegs.	Wormwood.
	Parmaceti.	Yew (or Hebenon).
		Plantain.

The *materia medica* of that time included chloride of gold, mummy powder, powder made from the skull of a man which had been hanged, blood of dragons, entrails of animals, and other fearsome matters.

Amongst the *various preparations* mentioned through the plays are oils, balsams, syrups, infusions, plasters, poultices, cataplasms, salves, potions and pills, sleepy drinks, caudles and clysters.

A consideration of the narcotics, poisons, and aphrodisiacs, and of the clysters, poultices, salves, and plasters to be found in the plays would lead us into too minute and discursive an investigation on the present occasion. Of more striking and general interest is the evidence of the remarkably wise and reasonable views which Shakespeare manifests on the subjects of treatment, diet, and hygiene. This is particularly astonishing when we remember that he lived at a time when blood-letting was the favourite remedy and when—as shown by the enormous bills of the apothecaries of the period—the amount of drugs swallowed by the public was astonishing.

How wise, for instance, is the recognition of the way in which the same agent will act differently in different patients. Lady Macbeth says—

That which hath made them drunk hath made me bold;
What hath quench'd them hath given me fire.

Macbeth, ii, 2.

He does not over-estimate the help of medicine. The King in *Cymbeline* says—

But I consider
By medicine life may be prolong'd, yet death
Will seize the doctor too.

Cymbeline, v, 3.

But we must not be entirely expectant in treatment when energetic action is required—

Brutus. Sir, those cold ways,
That seem like prudent helps, are very poisonous
Where the disease is violent.

Coriolanus, iii, 2.

Diseases, desperate grown,
By desperate appliance are reliev'd
Or not at all.

Hamlet, iv, 3.

MEDICAL NOTE TAKING.

A justification for our case-books is found in the wise note-taking of the cautious Scotch doctor in *Macbeth*—

I will set down what comes from her (Lady Macbeth) to satisfy my remembrance the more strongly.

Macbeth, v, 1.

And further commendation of note-taking is found in one of the sonnets—

The vacant leaves thy mind's imprint will bear,
* * * * *

Look, what thy memory cannot contain,
Commit to these waste blanks, and thou shalt find
These children nurs'd, deliver'd from thy brain,
To make a new acquaintance of thy mind.

These offices, so oft as thou wilt look,
Shall profit thee, and much enrich thy book.

Sonnet 77.

Patients sometimes appear to resent the notes we take on their past medical history. Shakespeare thus justifies our custom—

There is a history in all men's lives,
Figuring the nature of the times deceas'd:
The which observ'd, a man may prophesy,
With a near aim, of the main chance of things
As yet not come to life.

Henry IV, Part 2, iii, 1.

It is interesting to note the frequent mention made of *music as a remedy*, particularly in mental states. It is not always soothing, and may, in fact, have the opposite effect—

This music mads me; let it sound no more;
For, though it have help madmen to their wits,
In me, it seems, it will make wise men mad.

Richard II, v, 5.

In connection with this we may recall the well known line in which he suggests that enuresis may be excited by the bagpipes—

Some men there are, love not a gaping pig;
Some, that are mad if they behold a cat;
And others, when the bagpipe sings i' the nose,
Cannot contain their urine.

Merchant of Venice, iv, 1.

The *irritant effect of a cat's* presence, particularly on subjects of asthma, is well known, but this effect of the skirlin o' the pipes has never been noted in the Highlands of Scotland, although the practice of carters who encourage micturition in their horses by whistling is well known.

SHAKESPEARE'S MEDICINE OF THE PERIOD.

Although wise for all time in the wide views of saving common sense, we must remember that Shakespeare's medicine could not do otherwise than reflect that of the period. Thus it was well accepted in those days that our bodies consist of *four elements*—fire, air, earth, and water. This dictum dated from Plato, was adopted by Galen, and approved of by the schoolmen of the Middle Ages. Sir Toby Belch expresses this idea when he says—

Does not our life consist of the four elements?
Sir Andrew Aguecheek. 'Faith, so they say; but, I think, it rather consists of eating and drinking.

Twelfth Night, ii, 3.

And Mark Antony, speaking of Brutus, says—

His life was gentle; and the elements
So mix'd in him that nature might stand up.
And say to all the world, "This was a man."

Julius Cæsar, v, 5.

There are more references to this in Sonnets 44 and 45.

The doctrine of "humours" and the view that the "vital spirits" dwelt in the arteries are frequently recognised by Shakespeare—

Why, universal plodding prisons up
The nimble spirits in the arteries,
As motion, and long-during action, tires
The sinewy vigour of the traveller.

Love's Labour's Lost, iv, 3.

Take thou this phial, being then in bed,
And this distilled liquor drink thou off:
When, presently, through all thy veins shall run
A cold and drowsy humour; for no pulse
Shall keep his native progress, but surcease.

Romeo and Juliet, iv, 1.

He shows the influence of the views then prevalent that plants possessed peculiar powers if plucked in the night time and during particular phases of the moon—

Jessica. In such a night
Medea gather'd the enchanted herbs
That did renew old Æson.

Merchant of Venice, v, 1.

Friar Lawrence. Now ere the sun advance his burning eye,
The day to cheer, the night's dank dew to dry,
I must up-fill this osier cage of ours,
With baleful weeds, and precious-juic'd flowers.

Romeo and Juliet, ii, 3.

And

Root of hemlock digg'd i' the dark.

Macbeth, iv, 1.

Also

I bought an unction of a mountebank,
So mortal, that but dip a knife in it,
Where it draws blood, no cataplasm so rare,
Collected from all simples that have virtue
Under the moon, can save the thing from death.

Hamlet, iv, 7.

He reflects the old belief in the influence of the planets on disease—

But when the planets,
In evil mixture, to disorder wander,
What plagues, and what portents!

Troilus and Cressida, i, 3.

Be as a planetary plague, when Jove
Will o'er some high-vic'd city hang his poison
In the sick air.

Timon of Athens, iv, 3.

and converse in *Hamlet*, when Marcellus, referring to Christmas time, says—

The nights are wholesome, then no planets strike.

Our every-day expression, that a person is moon-struck, illustrates the old credence in the influence of the moon on the mind—

It is the very error of the moon;
She comes more near the earth than she was wont,
And makes men mad.

Othello, v, 2.

It was a common belief in those times that *toothache* was caused by a humour or a worm—

What! sigh for the tooth-ache?
Where is but a humour, or a worm?

Much Ado About Nothing, iii, 2.

The popular use of the *cobweb* to stop bleeding from a cut finger was as common 300 years ago as it still is—

Bottom. I shall desire you of more acquaintance, good Master Cobweb; if I cut my finger I shall make bold with you.

Midsummer Night's Dream, iii, 1.

As regard *the surgery of the plays* it is hardly surprising that wound trouble is ascribed to the access of air instead of the ingress of organisms. Nearly three centuries had to wait the coming of that other great Englishman, Lister.

The air hath got into my deadly wounds,
And much effuse of blood doth make me faint.

Henry IV, Part III, ii, 6.

In reference to *the dressing of wounds we read—*

I'll fetch some flax, and whites of eggs
To apply to his bleeding face.

King Lear, iii, 7.

and a reference to Elizabethan literature shows that this was a frequent application of the surgeons of the period.

QUACKERY OF WATER-CASTING.

Even the quackery of his age is reflected in the pages of Shakespeare. One of the most common was water-casting, as it was called. This was a custom of diagnosing diseases by mere inspecting of the urine, without seeing the patient, and had probably sprung up from the ecclesiastical interdiction on priests and monks to visit their patients. Many publications of the period refer to it, and great artists like Gerard Dow have illustrated the practice in their pictures. Falstaff asks—

Sirrah, you giant, what says the doctor to my water?

Page. He said, Sir, the water itself was a good healthy water; but, for the party that owned it, he might have more diseases than he knew for.

Henry IV, Part II, i, 2.

This urine examination is used as a medical simile in regard to the illness of a country. Thus Macbeth exclaims—

If thou couldst, doctor, cast
The water of my land, and find her disease,
And purge it to a sound and pristine health,
I would applaud thee to the very echo,
That would applaud again—Pull't off, I say—
What rhubarb, senna, or what purgative drug,
Would sour these English hence?

Macbeth, v, 3.

You are so without these follies, that these follies are within you, and shine through you, like the water in an urinal, that not an eye that sees you but is a physician to comment on your malady.

Two Gentlemen of Verona, ii, 1.

The "urinal" was the glass vessel in which the urine was set aside for inspection.

There were even female quacks in this line. Thus Fabian, referring to Malvolio, exclaims:—

Carry his water to the wise woman.

Twelfth Night, iii, 4.

The practice is denounced in an old statute of our College of Physicians, and Shakespeare possibly saw through the pretension, for, in making fun of Dr. Caius, the host salutes him as "Thou art a Castalian king Urinal and Monsieur Mock-Water" (*Merry Wives of Windsor*, ii, 3).

BLOOD-LETTING.

With regard to blood-letting, Shakespeare repeatedly shows how well acquainted he was with the practice of the period:—

We are all diseas'd,
And, without our surfeiting, and wanton hours,
Have brought ourselves into a burning fever,
And we must bleed for it.

Henry IV, Part II, iv, 1.

He suggests avoiding bleeding by purgation—

Let's purge this choler without letting blood:
This we prescribe, though no physician;
Deep malice makes too deep incision:
Forget, forgive; conclude and be agreed:
Our doctors say this is no month to bleed.

Richard II, i, 1.

This quotation illustrates the belief that bleeding was particularly desirable at certain seasons, indeed, spring and autumn were the approved of seasons since the days of Hippocrates. Further references to this point are found in *Coriolanus*, i, 5, and *Love's Labour's Lost*, iv, 3.

THE BLOOD AND CIRCULATION.

While on this subject of blood-letting we might give some consideration to the poet's frequent reference to the blood and circulation. The healthiness of the blood is considered:—

The life of all his blood
Is touch'd corruptably.

King John, v, 7.

How comes it, then, that thou art call'd a king,
When living blood doth in these temples beat,
Which owe the crown that thou o'ermasterest?

King John, ii, 1.

These quotations might be multiplied, but, after all, the theory that "the blood is the life", endorsed in our day by quack medicine vendors,

is as old as the Bible, for we read in Leviticus (xvii, 11) that "the life of the flesh is in the blood".

As leaky as an unstaunched wench.

Tempest, i, 1.

is a good description of a slowly foundering ship.

The effect of tight lacing on the heart is recognised by the Queen in *Richard III*, when she cries out:—

Queen Elizabeth. Ah! cut my lace asunder,
That my pent heart may have some scope to beat,
Or else I swoon with this dead-killing news.

Richard III, iv, 1.

and the warmth of the blood is mentioned by

I cannot rest,
Until the white rose that I wear, be dy'd
Even in the lukewarm blood of Henry's heart.

Henry IV, Part III, i, 2.

How poetical and how correct is this description of the palpitation of nervous excitement:—

Why do I yield to that suggestion
Whose horrid image doth unfix my hair,
And make my seated heart knock at my ribs,
Against the use of nature?

Macbeth, i, 3.

and was Hamlet anticipating our twentieth century studies of cardiac rhythm when he says:—

My pulse, as yours, doth temperately keep time,
And make as healthful music.

Hamlet, iii, 4.

The local and general distress of cardiac embarrassment is beautifully described by—

O heavens!
Why does my blood thus muster to my heart,
Making both it unable for itself,
And dispossessing all my other parts
Of necessary fitness?

Measure for Measure, ii, 4.

The egregious Pinch was, as I have remarked, an irregular practitioner, but he apparently had quite the bedside manner when, in the *Comedy of Errors*, he says:—

Pinch. Give me your pulse and let me feel your hand.

Comedy of Errors, iv, 4.

We now come to the following most striking quotations on *the circulation of the blood*:—

As dear to me as are the ruddy drops
That visit my sad heart.

Julius Cæsar, ii, 1.

Lord Angelo is precise;
Stands at a guard with envy; scarce confesses
That his blood flows, or that his appetite
Is more to bread than stone.

Measure for Measure, i, 4.

The leperous distilment; whose effect
Holds such an enmity with blood of man,
That, swift as quicksilver, it courses through
The actual gates and alleys of the body;
And, with a sudden vigour, it doth posset
And curd, like eager droppings, into milk,
The thin and wholesome blood.

Hamlet, i, 5.

It is almost uncanny to read these lines, conveying as they do, at first glance, a comprehension of the circulation of the blood. For, by a strange coincidence, it was only in the year 1616, and in the month of April, and in the very week preceding Shakespeare's death, that William Harvey gave his first course of Lumleian Lectures at the Cillage of Physicians. In these lectures, as his notes prove, he first enunciated his memorable discovery in these remarkable words.—“Whence it follows that the movement of the blood is constantly in a circle, and is brought about by the beat of the heart.”* He did not make his results public until 12 years after Shakespeare's death, the ‘*Exercitatio Anatomica de Motu Cordis et Sanguinis in Animalibus*’ being published at Frankfort in 1628. But, on looking into the matter more closely, we find that in this, as in those points I have already dealt with, Shakespeare only reflects the actual state of medical science of his time. Thus, in the two following quotations, it will be noticed that it is the circulation through the veins to the heart which is indicated.

Through all my veins shall run
A cold and drowsy humour; for no pulse
Shall keep his native progress, but surcease.

Romeo and Juliet, iv, 1.

In *Coriolanus* the stomach, in reply to the attacks of its enemies, speaks as follows:—

“True is it, my incorporate friends”, quoth he,
“That I receive the general food at first
Which you do live upon; and yet it is;
Because I am the store-house and the shop
Of the whole body; but, if you do remember,
I send it through the veins of your blood,
Even to the court, the heart—to the seat o’ the brain
And through the cranks and offices of man
The strongest nerves and small inferior veins
From me receive that natural competency
Whereby they live.”

Acti, Sc. 1.

* D’Arcy Power. ‘William Harvey’, in “Masters of Medicine”. London, 1897, p. 66

We have already seen that, according to the doctrine of that time, the arteries, found empty after death, contained air or the "spirits" during life:—

The nimble spirits of the arteries,

says Biron in *Love's Labour's Lost*, iv, 3; and, when Dr. Cornelius gives the Queen in *Cymbeline* a poison, he remarks:—

There is
No danger in what show of death it makes,
More than the locking up the spirits a time,
To be more fresh, reviving.

Cymbeline, i, 6.

[In the *Merchant of Venice* (iii, 2, 264), there is a passage of much interest, pointing out the blood-flow:—

Here is a letter, lady;
The paper as the body of my friend,
And every word in it is a gaping wound,
Issuing life-blood.

Merchant of Venice, iii, 2.
Editor, *Canada Lancet*

A careful perusal of all these lines shows that Shakespeare shared the accepted view that the blood circulated through the veins and the right side of the heart, but that he did not anticipate the great discovery of Harvey, to whom is due the demonstration of the complete circuit of the venous and arterial circulation.

* * * * *

SHAKESPEARE'S MEDICAL KNOWLEDGE OF SOME PARTICULAR SUBJECTS:—

THE VOICE; CONSUMPTION; AIR; SYPHILIS; CANCER; OBSTETRICS;
PUBLIC HEALTH; MENTAL DISEASES; EPILEPSY; SUGGESTION; SUR-
GERY; VIVISECTION.

The Voice.—Appreciation of sweet voices, both male and female, is thus expressed:—

I thank you for your voices, thank you,
Your most sweet voices.

Coriolanus, ii, 3.

Her voice was ever soft,
Gentle and low—an excellent thing in woman.

King Lear, v, 3.

The breaking of the voice at puberty is described:—

And speak between the change of man and boy
With a reed voice.

Merchant of Venice, iii, 4.

The change of the voice in those that have been subjected to castration is thus referred to:—

My throat of war be turn'd,
Which quired with my drum, into a pipe
Small as a eunuch, or the virgin voice
That babies lulls asleep!

Coriolanus, iii, 2.

Personally, I have taken great interest in what I thought was the discovery of a reference to singer's nodules in the line—

For my voice I have lost with hollaing and singing of anthems.

Henry IV, Part II, I, 2.

But when I discovered that the confession emanated from Sir John Falstaff, and realised—as we shall hear from his own lips later on—that he was addicted to indulgence in wine and had been exposed to syphilitic infection, then I felt that the loss of voice was not entirely due to anthem singing, but was more likely the result of tertiary laryngeal syphilis in an alcoholic subject! And that description of the thin voice of extreme old age is well known:—

His big manly voice,
Turning again towards childish treble, pipes
And whistles in his sound.

As You Like It, II, 7.

Syphilis was generally called the "French disease", but it was also termed the "Neapolitan disease", and the nasal speech produced by tertiary perforation of the palate is referred to, metaphorically, in the complaint of the wind instruments of the musicians:—

Clo. Why, masters, have your instruments been in Naples, that they speak i' the nose thus?

Othello, III, 1.

[*Fever.*—This brief section is added to Sir S. Thomson's address. In *King John* (v, 6 and 7), there are some very pertinent remarks on the sickness of the king. In scene 6, *Hubert* expresses the fear that the king has been poisoned; but a careful study of the context makes it clear that things were going badly with his majesty. The probability is that he contracted a chill and was also in a very nervous and depressed frame of mind. On 11th October, 1215, with a portion of his army he was crossing the Wash at King's Lynn, when the tide came in and swept away much of the baggage and equipment, and many of his horses and men were drowned. He fell into a fever and died on 18th October. The illness was most likely pneumonia. Here are some of the extracts:—

Prince Henry. It is too late; the life of all his blood
Is touch'd corruptibly; and his pure brain,—
Which some suppose the soul's frail dwelling house,—
Doth, by the idle comments that it makes,
Foretell the ending of mortality.

Pembroke. His highness yet doth speak; and holds belief
That, being brought into the open air,
It would allay the burning quality
Of that fell poison which assaileth him.

P. Hen. Let him be brought into the orchard here.
Doth he still rage?

Pembroke. He is more patient
Than when you left him: even now he sings.

P. Hen. O, vanity of sickness! fierce extremes
In their continuance will not feel themselves.
Death, having prey'd upon the outward parts,
Leaves them invisible; and his stage is now
Against the mind, the which he pricks and wounds
With many legions of strange fantasies,
Which, in this throng and press to that last hold,
Confound themselves. 'Tis strange that death should sing.

K. John. Ay, marry, now my soul hath elbow room;
It would not out at windows, nor at doors.
There is so hot a summer in my bosom
That all my bowels crumble up to dust:
I am a scribbled form, drawn with a pen
Upon a parchment, and against this fire
Do I shrink up.

P. Hen. How fares your majesty?

K. John. Poison'd, ill-fare; dead, forsook, cast off;
And none of you will bid the winter come
To thrust his icy fingers in my man;
Nor let my kingdom's rivers take their course
Through my burn'd bosom; nor entreat the North
To make his bleak winds kiss my parched lips
And comfort me with. I do not ask you much:
I beg cold comfort; and you are so strait
And so ingrateful you deny me that.

King John, v, 6 and 7.

Some of these words of King John may appear to be too rational for one in the delirium of pneumonia; but it must be borne in mind that Shakespeare is more the poet than the clinician. He is not making King John speak and act wholly as one who is delirious; but as one who is appealing to those around him, and trying to express his feelings. Editor *Canada Lancet*.]

Consumption.—Bucknill suggests that consumption is referred to in Perdita's description of flowers—

Pale primroses
That die unmarried, ere they can behold
Bright Phœbus in his strength—a malady
Most incident to maids.

Winter's Tale, iv, 3.

If Timon of Athens was referring to tuberculosis when he says "Consumption catch thee" (iv, 3), he certainly suggests that the disease was looked on as contagious in the sixteenth century.

Falstaff may or may not be illustrating an analogy from phthisis and the general view that it was incurable, when he says—

I can get no remedy against this consumption of the purse; borrowing only lingers and lingers it out, but the disease is incurable.

Henry IV, Part II, i, 2.

Beatrice, in a merry spirit, says she takes pity on her lover as she had heard he was in a consumption—

Beatrice. I would not deny you,—but by this good day I yield upon great persuasion; and partly to save your life, for I was told you were in a consumption.

Much Ado About Nothing, v, 4.

It should be noted that Beatrice indicates that, even in those days, consumption was curable.

Air and Climate.—From his references to consumption we pass naturally, to Shakespeare's remarkable appreciation of fresh air—

The climate's delicate; the air most sweet.

The Winter's Tale, iii, 2.

The air breathes upon us here most sweetly.

The Tempest, ii, 1.

How well he describes the air on cold nights—

Hamlet. The air bites shrewdly; it is very cold.
Horatio. It is a nipping and an eager air.

Hamlet, i, 4.

and appreciates the perfumed air of daybreak; for even the Ghost of *Hamlet* says—

But, soft! methinks I scent the morning air.

Hamlet, i, 5.

He accepts the popular idea, still too common, that there is something particularly harmful in night air:—

Portia. Is Brutus sick,—and is it physical
To walk unbraced, and suck up the humours
Of the dank morning? What, is Brutus sick—
And will he steal out of his wholesome bed
To dare the vile contagion of the night,
And tempt the rheumy and unpurged air
To add unto his sickness?"

Julius Caesar, ii, 1.

What pleasure he evinces in mountain air—

On mountain standing,
Up in the air, crown'd with the golden sun.

Henry V, ii, 4.

and how he appreciates the good air of Scotland, for in *Macbeth* he exclaims—

This castle hath a pleasant seat: the air
Nimbly and sweetly recommends itself
Unto our senses.

The heaven's breath
Smells wooingly here:
The air is delicate.

Macbeth, i, 5 and 6.

But much more remarkable is his frequent commendation of air for various conditions. Thus, for ordinary fainting, how slow is the willing but untrained public to act on the first principle so well expressed in the following lines:—

Stand from him, give him air; he'll straight be well.

Henry IV, Part II, iv, 4.

So play the foolish throngs with one that swoons;
Come all to help him, and so stop the air
By which he should revive.

Measure for Measure, ii, 4.

Not that Shakespeare is always right, for, elsewhere, he puts into the mouth of one of his characters a very wrong position for a faint. When King Henry swoons on hearing of Gloster's death, Somerset advises to—

Rear up the body; wring him by the nose.

Henry VI, Part II, iii, 2.

Free access of fresh air is advised for other conditions besides attacks of fainting. The line—

The most wholesome physic of thy health-giving air.

Love's Labour's Lost, i, 1.

might serve as a motto for a sanatorium for tuberculosis, and the good influence of air on digestion is thus described—

The air is quick there, and it pierces and sharpens the stomach.

Pericles, iv, 1.

Even in more general affections, air is one of Nature's best awakeners—

His highness yet doth speak; and holds belief,
That, being brought into the open air,
It would allay the burning quality
Of that fell poison which assaileth him:
Let him be brought into the orchard here.

King John, v, 7.

I pray you give her air,

Gentlemen,

This queen will live; nature awakes; a warmth
Breathes out of her.

Pericles, iii, 2.

This suggests Shakespeare's appreciation of the *vis medicatrix naturæ*, as in the same play Dr. Cerimon says—

And can speak of the disturbances that nature
Works, and of her cures.

Pericles, iii, 2.

As opposed to a fresh air regime the drawbacks of a sedentary life—in which the vitiated air is the chief factor—are thus described—

Long sitting, to determine poor men's causes,
Hath made me full of sickness and diseases.

Henry IV, Part II, iv, 7.

The atmosphere of crowded "At Homes" is little better now than in the days of Henry VIII—

There's fresher air, my lord, in the next chamber,—
Lead in your ladies.

Henry III, i, 4.

In spite of their easily aired clothing and their cult of baths, the great unwashed in Rome made it impossible then, as now, to ventilate a crowd. Menenius shouts to the Roman citizens—

You are they
That made the air unwholesome.

Coriolanus, iv, 7.

In Timon's curse on Athens, after calling down plagues, fevers, sciatica, venereal diseases, itches, blains and general leprosy, he exclaims:

Breath infects breath;
That their society, as their friendship, may
Be merely poison!

Act IV, Sc. 1.

The following line is taken, curiously enough, from *A Lover's Complaint*:—

O, that sad breath his spongy lungs bestow'd.

A Lover's Complaint, 47.

Now, there are few pulmonary diseases that cause a characteristic foetid breath, and I would suggest that Shakespeare attributed to the lungs the odour which in all probability arose from the gums. If the line were thus altered—

O, that sad breath his spongy gums bestow'd.

it would serve as an excellent text for a paper on pyorrhœa. Shakespeare's error is very natural, for even nowadays I read articles which state that the air of respiration is warmed and moistened by the lungs, the writers being ignorant of the researches of rhinologists, who have demonstrated that all the warming, moistening, and filtering is effected in the nose. One of the risks of mouth breathing was realised by Casca, when he said:—

I durst not laugh for fear of opening my lips and receiving the bad air.

Julius Caesar, i, 2.

And, in connection with the mouth, it is most noteworthy that Coriolanus is made to send the following message to the citizens of Rome:—

Bid them wash their faces,
And keep their teeth clean.

Coriolanus, ii, 3.

Now, when we recollect that probably the first British monarch to see a tooth brush was George III, and that the cult of this instrument of health is far from universal, it is little short of astonishing that Shakespeare should have preached the æsthetic hygiene 300 years ago.

(*To be continued in August issue*).

ACUTE BRONCHITIS.

Antim. et Potassii Tart.	gr.	ij
Liq. Ammonii Acetatis		ʒiv
Spt. Ætheris Nitrosi		ʒj
Tinct: Aconiti		ʒss
Syr. Simplicis	q. s. ad	ʒvj
M. Sig.—A teaspoonful every two or three hours in first stage.		

PERSONAL AND NEWS ITEMS

The military patients in the hospital at Whitby are being removed to the hospital in Rosedale, Toronto, and the patients in the Asylum on Queen St., Toronto, are being removed to the Asylum at Whitby, now being vacated as a military hospital.

It is with regret that the death of Mrs. Brown, wife of Dr. Price Brown, is recorded. Dr. Price Brown was in active practice in Toronto, as nose and throat specialist for many years; but retired from practice about five years ago, and has been living near Lynedoch, Norfolk county. Mrs. Brown's remains were interred in Evergreen Cemetery, Lynedoch.

On the occasion of his 70th birthday, Dr. John Beattie Crozier, born in Galt in 1849, a graduate in medicine of Toronto University, and residing in London, received a letter congratulating him on his valuable contributions to science and higher thought, signed by Lord Morley, Lord Bryce, Frederic Harrison, Sir W. Osler, Sir Francis Younghusband, St. Loe Strachey, Dr. W. L. Courtney, H. W. Massingham, T. P. O'Connor, M.P., Dr. John Clifford, J. L. Garvin, J. A. Hobson, Arthur Sherwell, J. F. Muirhead, G. P. Gooch, and Bailey Saunders. Higher honor could not come to any man.

Lieut.-Col. Edward Cooper Cole, who did excellent medical services over seas during the war, was recently given command of the hospital at Whitby, Ont.

Many former students and noted Medical Scientists have made contributions to several volumes as a birthday gift for Sir William Osler who is 70 years old on 12th July. For many years he was professor of physiology at McGill Medical College. He accepted the position of clinical professor of medicine in the University of Pennsylvania. In 1889 he went to Johns Hopkins University as professor of medicine. In 1905, he accepted the position of Regius Professor of Medicine at Oxford, England.

The doctors of Paris, Ontario, have decided to raise their fees to double those before the war. For night services the rate will be three times that before the war.

Dr. C. R. Dickson, who has taken a lively interest in the blind, was presented recently with a handsome club bag by his colleagues and the blind for whom he had done so much. Dr. Dickson has resigned his work in connection with Pearson Hall, and will take up some important duties in the National Institute for the Blind. On the occasion of the presentation an excellent musical programme was furnished and refreshments served.

Dr. F. N. G. Starr has had the honor of having received the decoration of Commander of the Order of the British Empire for his services in France. The distinction was conferred on the King's birthday.

For the six months, ending 30th of June there had been only three deaths in Toronto from typhoid fever, and two of these contracted the disease outside the city.

The University of Laval will give to all young doctors, from other universities, one year's free tuition, and it is hoped that other universities may grant a similar privilege to the graduates of Laval.

Maj.-Gen. C. H. Burtchell has been appointed director-general of medical services of the British armies in France in succession to Lieut.-Gen. Sir A. T. Sloggett, who retires at the age limit.

Dr. Tom Williams has returned to Washington, after 18 months in France as neurological adviser to the Red Cross. He will soon publish a book on Disorders of the Nervous System in Warfare.

By the will of the late Mr. William Ramsay, a former Toronto merchant, who died at his home in Bowland, Scotland, properties worth \$437,341, are left to Toronto charities.

Col. Perry G. Goldsmith, M.D., C.M., of Toronto, has been appointed a Commander of the Order of the British Empire, for distinguished services in France. He arrived in France ahead of the first Canadian contingent.

The University of Edinburgh has conferred the degree of LL.D., honoris causa, upon Brig.-Gen. A. E. Ross, M.D., M.P.P., of Kingston, who went overseas early in the war, and rendered signal service to the army.

Dr. C. T. Hendricks, of Scott County, Kentucky, was recently paid an account of \$7 that was 47 years old. The patient sent him \$22.75, which included the original debt and interest at 5 per cent.

The Canadian Red Cross has presented to the King two war hospitals, now disused, erected on Crown land at Bushey Park, each capable of accommodating 400 patients. The King has given one to the London County Council and the other to Birmingham. Both are for children.

Dr. Harvey Clare, formerly superintendent of the Toronto Reception Hospital, and recently Assistant Inspector of Prisons and Public Charities, has been appointed Medical Director of the Ontario hospitals (asylums).

Dr. R. W. Mann wishes to announce that after June 1st, 1919, he will retire from family practice and devote himself to internal medicine and laboratory methods. Address 184 Bloor St., W., Toronto.

Dr. J. Adams, who for eight years has filled the position of Epidemiologist in the Health Department of Toronto, has been appointed health officer in the Essex District.

Dr. S. L. Alexander wishes to announce that he has opened an office at 152 Bloor Street West, Toronto, and will confine his practice to diseases of the ear, nose and throat.

Dr. H. E. Clutterbuck, F.R.C.S.Ed., wishes to announce to the profession that he has returned to Toronto, and will in future confine his practice to general surgery, address 148 Grace Street, Toronto.

Col. E. G. Davis, C.M.G., M.D., has been appointed Acting Director of Medical Service for the Soldiers' Civil Re-establishment. He takes the place vacated by the resignation of Lieut.-Col. F. McKelvey Bell.

Major D. A. Clark, of 710 Dovercourt Road, Toronto, after more than four years' service overseas, has been appointed to the staff of the Military Neurological Hospital at Vancouver.

Lieut.-Col. John A. Amyot, M.B., C.M.G., of Toronto, has been appointed Deputy Minister of Health in the new Department of Health at Ottawa. Dr. Amyot did excellent work in the hygienic care of the army. Before going overseas he was professor of Sanitary Science in the University of Toronto.

Dr. W. T. Grenfell, C.M.G., is engaged in an effort to establish some local hospitals throughout Labrador for the treatment of the sick and the prevention of the spread of disease. His plan is to have nurses stationed at certain points to keep a close watch over conditions.

Dr. D. King Smith begs to announce that he has resumed practice and as formerly will confine his work to diseases of the skin. Address 22 Wellesley Street, Toronto.

The employees of the T. Eaton Company presented to Sir John Eaton an X-ray wing and cot for the Hospital for Sick Children. The cost of the wing and cot will be \$20,000. The gift was accepted in suitable terms by Sir John and handed over to the hospital authorities.

The University of Toronto Base Hospital No. 4 arrived home recently, and was given a royal welcome. From November, 1915, to September, 1917, it was stationed at Saloniki. From the latter date on at Basingstoke, England.

Sir Arthur Newsholme, in his recent visit to Toronto, laid much stress on three points: The splendid services the Red Cross had rendered; The great importance of safe-guarding the health of the children; and the evil effects of alcohol.

The feature of the vital statistics for June is the remarkable increase in Toronto in marriages, compared with the previous month, and of over

four score compared with June last year. Births and deaths were lower than last year, while the deaths from contagious diseases were normal. The figures issued by the City Clerk were: June, 1919, Births, 940; Marriages, 774; Deaths, 430.

In the monthly report issued by the Health Department of Toronto regarding the communicable diseases for the month of June a decrease over the figures of May for diphtheria, as well as for scarlet fever and mumps, is seen, while there is a slight increase in the number of cases of typhoid fever, tuberculosis, whooping cough and smallpox.

There was a lively discussion in the House of Commons on proprietary medicines. The doctors in the House were very pronounced in their views that no medicine sold for the use of children should contain opium or the derivatives from coal tar in any form.

The deaths in Toronto for June among children under one year were only 70. This is the lowest known for June since records have been kept. This is a good showing in face of the extreme heat.

According to the investigations of Dr. F. C. Wood, of the Crocker Research Fund, the number of deaths from cancer is steadily and rapidly increasing. The rate has risen in the United States from 63 per 100,000 of the population in 1900 to 79.4 per 100,000 in 1914. In one State it has reached 109.

In Ontario during June the following diseases caused deaths thus: Smallpox, 2; scarlet fever, 6; diphtheria, 25; tuberculosis, 183.

OBITUARY

J. D. HELMCKEN, M.D.

Dr. Helmcken died last April in Victoria, B.C., at the age of 61. At one time he was doctor to the provincial jail, and medical officer to the Indians. He took a keen interest in St. Joseph's Hospital. He had an extensive practice among children, and was a highly esteemed member of the profession and citizen.

A. D. MACDONALD, M.D.

Dr Macdonald was a native of New Brunswick, but some years ago sought a change of climate on account of ill health. He located in Montana, and, at the time of his death, was Medical Superintendent of the State Sanitarium for Tuberculosis at Galen. He was a graduate of McGill University.

A. E. McCOLL, M.D.

Major Allan E. McColl died at his home in Belleville in the 57th year of his age. He was a graduate of Queen's University. In the early years of the war he joined the C.A.M.C., and did active work until his health failed and he was forced to retire in the fall of 1917.

JAMES MOON SALMON, M.D.

Dr. J. M. Salmon died on 17th June at his home in Simcoe in his 96th year. He was licensed by the Upper Canada Medical Board in 1847. The Board was composed of Drs. Widmer, Hornby, Herrick, Nicol, Hamilton, Beaumont, Gwynne, and Telfer. He was a nephew of Judge Salmon, first Judge of the County of Norfolk.

DAVID HEGGIE, M.D.

Dr. Heggie died at his home in Brampton, Ontario, on 20th July, at the age of 82. He was born in Edinburgh and came to this country 60 years ago. For some time he taught school in Peel County. He then studied medicine in Kingston and graduated from Queen's University, after which he settled in Brampton. He took a good deal of interest in everything that tended to better the condition of his own town. He is survived by his sons, Dr. W. C. Heggie of Toronto, and Dr. Norman Heggie of Jacksonville, Florida. The late Dr. Heggie was one of the best loved members of the medical profession in the province of Ontario.

PATRICK F. COLEMAN, M.D.

Dr. Coleman died suddenly a few days ago from an attack of apoplexy. He was in his 56th year, and had resided in Toronto for 35 years. He was a graduate of Toronto University, but had not actively followed up his profession.

J. W. HAYES, M.D.

Dr. Hayes died at his home in Peterborough on 6th July. He was formerly house surgeon at St. Michael's Hospital, Toronto. He took a post graduate course in New York; but on returning his health gave way and he was ill for a year and a half prior to his death.

BOOK REVIEWS

UROLOGY.

- A Text-book of Urology in Men, Women and Children, including Urinal and Sexual Infections, Urethroscopy and Cystoscopy. By Victor Cox Pederson, A.M., M.D., F.A.C.S., Major, Medical Corps, United States Army; Consulting Physician to the elective Service Headquarters in the city of New York; Member of the Council of National Defence, New York State Committee, Medical Section; Visiting Urologist to St. Mark's Hospital; Major, Medical Reserve Corps, United States of America; Member of the American Urological Association, American Medical Association, New York Academy of Medicine, etc. Illustrated with 362 engravings, of which 152 are original and 13 colored plates. Philadelphia and New York: Lea & Febiger, 1919. Price, \$7.00.

The author announces in the preface that attention throughout the volume will be given to "the clinical side of the diseases included". This is a sound position. Elaborate discussions on pathology are not overly useful in a work that is intended for the general practitioner. Very full attention is given to the diseases of the urethra and the urinary bladder. He devotes much space to the management of gonococcal infection and resulting signals, such as stricture. A very valuable section of the book is devoted to the study and treatment of gonorrhœa in the female, involving the vagina, cervix, endometrium, and tubes. The methods of examining the bladder are taken up in detail. Infections of the kidney are also fully discussed. One must state that this is a splendid book from the pen of a very experienced teacher and writer.

GYNOPLASTIC TECHNOLOGY.

- Gynoplastic Technology, with a chapter on Sacral Anaesthesia. By Arnold Sturmdorf, M.D., Clinical Professor of Gynæcology, New York Polyclinic Medical School; Visiting Gynæcologist, New York Polyclinic Hospital; Consulting Gynæcologist to the Manhattan State Hospital; Fellow of the American College of Surgeons; Fellow of the New York Academy of Medicine; Fellow of the American Medical Association, etc., etc. Illustrated with 152 half-tone and photo-engravings in the text, and some in colors, and 23 full-page plates, with 35 plates, all in colors. Philadelphia: F. A. Davis Company, Publishers. English depot, Stanley Phillips, London, 1919. Price, \$5.00 net.

The author has given to the Medical Profession a useful and readable book. The volume is most profusely illustrated which is very important in a work of this sort, as no amount of description can take the place of a good picture. Judging by what is said in the preface, the real aim of the author is to give the most modern views and methods, and to break away from all those methods of the past that were founded upon wrong pathology or faulty clinical deductions. This is no easy task, but we must praise the author's success. The book is a very handsome one.

PROGRESSIVE MEDICINE.

A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics, Materia Medica, and Diagnosis in the Jefferson Medical College, Philadelphia, assisted by Leighton F. Appleman, M.D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia. Philadelphia and New York: Lea & Febiger, June, 1919. Price, \$6.00 per annum.

This is volume 11 for 1919, and covers the subjects of Hernia, surgery of the abdomen, gynaecology, disorders of nutrition and metabolism, diseases of blood and spleen, and ophthalmology. The contributors are J. G. Clark, W. B. Coley, E. H. Funk, W. F. Hardy, and A. O. Wilensky. We recommend this volume as excellent.

RECONSTRUCTION THERAPY.

Reconstruction Therapy. By William R. Dunton, Jr., M.D., Assistant Physician at Sheppard and Enoch Pratt Hospital, Towson, Md.; Instructor in Psychiatry, Johns Hopkins University. 12 mo. of 236 pages, 30 illustrations. Philadelphia and London: W. B. Saunders Company, 1919. Cloth, \$1.50 net. Toronto, J. F. Hartz & Co.

This little book deals with occupation, directing occupations, duties of those who direct occupations, helps, financial, training courses, amusements, workshops, occupational therapy, prosthetic appliances, physical education, occupations for the feeble-minded and the blind, social service. This is a very useful manual of occupational training and physical culture. We have examined it with much care, as this subject has been in the limelight for some time. We can very cordially recommend this excellent book.

PULMONARY TUBERCULOSIS.

Rules for Recovery from Pulmonary Tuberculosis: A Layman's Handbook of Treatment. By Lawrason Brown, M.D. Third edition, thoroughly revised. Philadelphia and New York: Lea & Febiger, 1919. Price, 01.50.

In this neat little book of about 200 pages we find a summary, and articles on rest, food, alcohol and tobacco, fresh air, sitting out, sleeping out, the patient's room, on exercise, recreations, the temperature of the body, on cough, body weight, patient and physician, climate, how the disease is contracted, care in tuberculous homes, on the disease, on cures, care of patient, care of the mouth, suggestions for patients, food values. This little book is replete with sound advice on every page. What the author has to say about alcohol, tobacco, foods, climate, clothing, exercise, and so on should be fastened upon every person's memory. If patients knew some of the wholesome teaching this book contains it would save them from much trouble, useless expense, quackery, and misery. Every doctor should have a copy.

NURSING.

The Principles of Nursing. By Charlotte A. Brown, R.N., Superintendent of Nurses in the New York Hospital for Women and Children; Graduate of the Boston City Hospital and Boston Lying-in Hospital Training School for Nurses; late Instructor in the Boston City Hospital Training School for Nurses; late Superintendent of Nurses in the Hartford Hospital Training School for Nurses, Hartford, Conn. Illustrated. Philadelphia and New York: Lea & Febiger, 1919. Price, \$1.75.

This is a superior guide for nurses in the discharge of their professional duties. The authoress has shown rare skill in condensing her matter into brief form. What a Nurse Should Know is here told in the very best way. It is a matter for regret that nurses cannot be compelled to peruse such such a book. It would be a real boon to patients if nurses would take the trouble to study such a text-book as this, as it would keep them well up-to-date in their methods. After leaving the training school it is an easy matter to forget, or to get out of touch with the latest and best ideas. Herein is the value of this book, which should find a place in the outfit of every nurse.

JOHN COAKLEY LETTSOM.

John Coakley Lettsom, and the Foundation of the Medical Society of London. By Sir St. Clair Thomson, M.D., President of the Society. Harrison & Sons, 45 St. Martin's Lane, London, W.C. 2. Pp. 62, with 4 plates and 14 figures in the text. Price, 2s. 6d.

The writer of this brochure has a keen and artistic sense of biographical values. In his Presidential address, delivered last year, he gives a pen-picture of the celebrated Dr. Lettsom who founded the first of all the medical societies of London in the year 1773. Between that date and Waterloo year—when he died,—Lettsom is shown living as strenuous a life as any hustler of the present age,—using up three pairs of horses per day, earning an annual income of £5,000 to £10,000, writing essays, delivering addresses, and enjoying what he calls “the pleasant conviviality” of society. He seems to have known everybody who was anybody in those spacious days, and we get charming pictures of Samuel Johnson, Mrs. Siddons and other well-known personages. He was the first to send Jenner's vaccine lymph across the Atlantic; he introduced the mangel-wurzel into England; he sent the seeds of it to “our great and good Virginia farmer, Gen. Washington”; and he had a wide friendship in America. Lettsom was full of the milk of human kindness and the *joie de vivre*. The author of this essay is well-known as a writer of clear, terse and vivid English, with a keen sense of proportion and of humour. Many a ponderous biography, stuffed with information,

leaves the reader almost a complete stranger to the hero. This essay is well worth reading, not only as a picture of the medical and social life of the Georgian period, but because it portrays Dr. Lettsom so clearly and sympathetically that, at the end of these 61 pages, no one can fail to feel he has made the acquaintance, and will preserve the memory, of a unique personality.

SPEECH DISORDERS.

A Manual of Exercises for the Correction of Speech Disorders. By May Kirk Scripture, B.A., Instructor in Speech, Columbia University; Director of Speech Correction, Vanderbilt Clinic, Neurological Department, College of Physicians and Surgeons, New York; Special Assistant in Speech Defects, Medical Council of New York Children's Hospital and School, Randall's Island; Lecturer at State University of Iowa, Iowa, 1918; and Eugene Jackson, B.A., in charge of Speech Correction at the University and Bellevue Hospital Medical College Clinic, New York city; Teacher for the Correction of Speech Defects, New York Evening Schools. Illustrated. Philadelphia: F. A. Davis Company; London: Stanley Phillips, 1919. Price, \$2.00.

It is very interesting to observe, as a perusal of this book makes clear, how much is being done for the improvement of speech. The voice is one of the chief glories of man; and all recognize what a pleasure it is to hold conversation with those who can articulate their words distinctly and with a melodious tone. Every child should be taught this in school. In all cases where there is any defect of speech special attention should be given. For guidance in this work, there is no better book than this one by Scripture and Jackson.

APPLIED ANATOMY AND KINESIOLOGY.

The Physical Education Series. Edited by R. Tait McKenzie, B.A., M.D., M.P.E., Major, Royal Army Medical Corps; Professor of Physical Education and Physical Therapy, University of Pennsylvania, Philadelphia. Applied Anatomy and Kinesiology, the Mechanism of Muscle Movement. By Wilbur Pardon Bowen, M.S., Professor of Physical Education, Michigan State Normal School, Ypsilanti, Michigan. Second edition, thorough revised. Illustrated with 197 engravings. Philadelphia and New York: ea & Febiger, 1919. Price, \$3.50.

This volume is devoted to the study of movement, and the muscles and joints involved in these. Dr. Bowen has gone into his subject in a scientific way, and, clearly, is an enthusiast. The study of anatomy from the standpoint of movement is most interesting and instructive. This work has been designated by the name Kinesiology. This book takes up the general principles, the movements of the upper limb, the movements of the lower limb, the movements of the trunk, and general Kinesiology. This is just the book that should be in the hands of every one who has to do with physical training and gymnastic classes.

AN OUTLINE OF GENITO-URINARY SURGERY.

An Outline of Genito-Urinary Surgery. By George Gilbert Smith, M.D., F.A.C.S., Genito-Urinary Surgeon to Out-patients, Massachusetts General Hospital. 12mo. of 301 pages, with 71 illustrations. Philadelphia and London: W. B. Saunders Company, 1919. Cloth, \$2.75 net. Toronto: J. F. Hartz Company.

In this small volume there is an excellent outline of surgery of the penis, urethra, bladder, prostate gland, seminal vesicles, the testicles, the scrotum, the ureters, the kidneys, and the female urethra. The illustrations are very fine, and the author has displayed good judgment in his account of all operative procedures, and treatment. Any one who wishes a useful manual on the subjects covered in this book, cannot do better than to secure a copy of this work.

ROENTGEN INTERPRETATION.

A Manual for Students and Practitioners. By George W. Holmes, M.D., Roentgenologist to the Massachusetts General Hospital and Instructor in Roentgenology, Harvard Medical School; and Howard E. Ruggles, M.D., Roentgenologist to the University of California Hospital, and Clinical Professor of Roentgenology, University of California Medical School. Illustrated with 181 engravings. Philadelphia and New York: Lea and Febiger, 1919. Price, \$2.75.

In this octavo volume of 211 pages, the authors set forth the best methods of interpreting X-ray plates and photographs. This department of diagnosis has now become so extremely important that no one can afford to be without such a work as this. The assistance it can render is very great. The authors have had much experience, and now give it to the profession in a handsome volume.

PULMONARY TUBERCULOSIS.

By Maurice Fishberg, M.D., Clinical Professor of Medicine, New York University and Bellevue Hospital Medical College; Attending Physician, Montefiore Home and Hospital for Chronic Diseases, New York. Second edition, revised and enlarged. Illustrated with 100 engravings and 25 plates. Philadelphia and New York: Lea and Febiger, 1919.

In this octavo volume of 744 pages, there is a most exhaustive study of every phase of pulmonary tuberculosis. The incidence of the disease at the different ages; the frequency of recovery; the morbid changes, the method of infection; the diagnosis; and the treatment, receive the fullest consideration. It is quite impossible in the space at our command to do justice to this volume, which is the product of a vast amount of research and study. The author holds to the view that the human, bovine, and avian types of the bacillus do not transform into each other; and that tuberculosis in the adult is not the result of infection by the bovine, and avian types of the bacillus do not transform into each other; to note how the incidence of the disease increases with age. The newly

born child is free from the disease; by the fourteenth year, the tests find that 83 per cent. have become infected. Sooner or later, 90 per cent. of all adults become infected. The work is a most valuable one, and can be very cordially recommended.

HYGIENE AND PUBLIC HEALTH.

By George M. Price, M.D., Author of "A Handbook of Sanitation," "Tenement House Inspection," "Hygiene and Sanitation for Nurses," "The Modern Factory," Director, Joint Board of Sanitary Control. Second edition, thoroughly revised. Philadelphia and New York: Lea and Febiger, 1919. Price, \$1.50.

In a compact little volume of 280 pages, the author covers the main points on public sanitation. To those who are familiar with the other works written by the author, it goes without saying that the style is clear, simple, and condensed. Busy medical men may not be able to find time for larger works on sanitation, but if they can master the details of this book, they will be able to cope with any situation. It is really a good book.

THE JOHNS HOPKINS HOSPITAL REPORTS.

Volume XVIII of this series of reports has come to hand. It contains critical studies on a long range of topics of unusual interest. Among the subjects may be mentioned research work in the pancreas, cancer, the spleen, the parathyroids, leukaemia, diabetes, congenital obliteration of the bile-ducts, mesarteritis, heart block, on the growth of cells, poliomyelitis, etc. The volume is illustrated in a highly artistic manner. Taken altogether this report is worthy of the great medical centre that is responsible for its publication; and of all who have taken part in furnishing the material for it.

MISCELLANEOUS

COPY OF RESOLUTION PRESENTED AT THE MEETING OF THE COUNCIL OF THE FACULTY OF MEDICINE, UNIVERSITY OF TORONTO, BY DR. N. A. POWELL AT THEIR MEETING ON FRIDAY, MAY 23RD., AND ADOPTED BY THEM:—

In the passing of Dr. William Burt, of Paris, the profession has lost one of its honored and beloved members, the University one of its most distinguished graduates, and our country a many-sided and public-spirited citizen.

Born in 1849 Dr. Burt received his early training in Dr. Tassie's grammar school where beyond a doubt he learned to play the game of

life squarely. Winning a scholarship here he came to the Toronto School of Medicine where he was equally successful, graduating as silver medalist in 1870. Then followed a service as house-surgeon in the Brooklyn City Hospital and a further service as acting assistant surgeon in the American Army, fighting Indians in Texas. Following this he settled in Paris where he practised for more than 45 years.

By continued study and by frequent visits to the greater climes Dr. Burt kept himself thoroughly in touch with the advance of surgical science.

His series of cataract operations would have been a credit to any specialist. He was one of the first to follow Mitchell Banks in substituting radical for palliative operations for mammary cancer, while his abdominal surgery was varied, skillful and most successful.

So well was his ability recognized that he was for years examiner for the Medical Council as well as for the Medical Department of this University. No more fair or able examiner could be desired.

The highest honor in the gift of our profession—the Presidency of the Ontario Medical Association—came to him in 1905 and the duties of this office were discharged with signal tact and ability.

For the last fifteen years Dr. Burt has been a valued member of the Senate of the University of Toronto, at various times he was President of the Paris Board of Education, of the Childrens' Aid Society, of the Paris Branch of the British and Foreign Bible Society, and to all of these he gave wise and highly valued assistance.

Always and everywhere William Burt was the simple minded straight-forward kindly Christian gentleman and as such his memory is dear to all of us who had the high privilege of his friendship. He was a type of all that is best in Canadian medicine and a man of whom any country might be proud.

He fought a good fight and kept to high ideals; may his memory and his example long survive.

DEPARTMENT OF SOLDIERS' CIVIL RE-ESTABLISHMENT.

Ottawa, 22nd May, 1919.

To:—The Medical Profession, of Canada.

The Department of Soldiers' Civil Re-Establishment was created to perform, among other functions, that of furnishing medical treatment for disabilities due to or aggravated by service, occurring among ex-members of the Canadian Military and Naval Forces.

There has recently been added to this, by Order-in-Council, the duty of furnishing free medical treatment for any illness or disability occurring

after discharge from the Service, excepting in cases where the disability is due to vice or misconduct.

The Medical Branch of the Department operates through ten units, corresponding to the military districts, and administered by Unit Medical Directors, and in most of the cities and towns throughout Canada, medical representatives of the Department, (where possible, those returned from overseas), have been appointed, who report to the Unit Medical Directors.

In many cases, however, where the number of returned men does not warrant such action, medical representatives have not been appointed, and these men are therefore obliged, in case of illness or recurrence of a war disability, to secure the services of local physicians.

In all such cases, the local physician should communicate *at once* with the Medical Director of the Unit in which he is situated, stating full particulars of the case, such as the man's full name, regimental number, ex-rank, and the nature of the disease or disability, and, if possible, whether this is due to war service or not, and requesting further instructions.

It is the policy of the Department to equip and maintain in each of the larger centres of Canada, hospitals or other institutions, according to the needs of the district served, and, in most cases, particularly where treatment of long duration, or a serious operation, is required, this will be given in the hospital, or other institution operated by the Department, nearest the man's home, and to which the patient must be sent, if treatment is desired at the expense of the Department.

It is possible that some men may apply for treatment to a physician in a town where a medical representative of the Department has already been appointed. Such men should be referred to the local medical representative of the Department. Unless there are reasons, satisfactory to the Department, why this is not done, the Department will not accept responsibility for any expense incurred. Where medical representatives have not been appointed, however, the authority for treatment is obtained by the local physician, from the Unit Medical Director, reasonable accounts, for medical services will be paid by the Department. Such accounts must be made out according to a schedule of fees, which may be obtained from Unit Medical Directors on request.

TRIBUTE TO MISS JANE A. DELANO.

The death in active service of Jane A. Delano at Savenay, France, on April 15, brings to a close one of the most remarkable careers in the history of America's efficient womanhood. It is generally conceded to-

day that the highest human abilities are associated, not with the imaginative or the constructive powers, but rather with the capacities for management. Certainly, while our country has had many inventors and law-makers, she has had few endowed by nature with the tact, the patience and the will of the great administrator. Of this class Miss Delano—if my association with her entitles me to hazard the prediction—will be among the foremost. To a vigor of mind and body which was apparently limitless, she added an independence of spirit and a strength of character which would have made her a leader in any profession. She possessed also the inestimable gift of understanding and sympathy for the plans and hopes of others, even in the profession for which she had worked so long. In action she was bold and resourceful, and had this quality of the ideal administrator,—that she assumed and acknowledged full responsibility for all decisions.

From the beginning of her career, when, in advance of medical science, she insisted upon the use of mosquito netting for her yellow fever patients in the south, up to the day of her death, when, with the survey of American nursing complete, and the great record of the war behind her, she was engaged upon a survey of nursing for France, Miss Delano was in advance of her time and of the standards of her profession—a leader always.

From first to last throughout the war one of her principal tasks was the study and patient sifting of ideas presented to her for the increase of the nursing service and its efficiency, and her wisdom in dealing with the situations which arose was unfailing.

Miss Delano's service—always as a volunteer—in the capacity of direction of the Department of Nursing of the American Red Cross, included some of the most important steps in the history of nursing in this country. Her work as the second superintendent of the Army Nurse Corps was one of the chief factors in maintaining the efficient relations which have existed between that body and its reserve supply, the American Red Cross Nursing Service. Through the various offices she filled in the Associations of Nursing she was able to bring about a complete coordination with the American Nurses Association, the Red Cross and the Army Nurse Corps. Her registration of nurses in the Red Cross was of the greatest value at the outbreak of the war. The experts from the War Department who investigated her office at the beginning of hostilities, stated that no recommendations could be made regarding improvements as it was already established along the most efficient lines. The Red Cross nurses, it is stated in a letter to me by Miss Maxwell of the Presbyterian Hospital, were the only body of women so organized that

they could be called upon for immediate action on the declaration of war. There have been, approximately, ten thousand five hundred Red Cross nurses in service overseas, and the total number of nurses employed in the war in all services is twenty-five thousand two hundred and forty-two. The credit of this splendid army of front line fighters in the ranks against death and disease is due to the group of devoted and able administrators of whom Miss Delano was the recognized head.

Miss Delano's greatest gift was undoubtedly her ability to cooperate, and the magnanimity with which she trusted her subordinates and associated with the responsibility for their tasks. She carried throughout her work the principles of decentralized responsibility which made the Red Cross efficient in the war. She cooperated to the utmost with the Committee on Nursing of the Council of National Defense, and thus this Committee and the National Committee on Nursing of the Red Cross were able to function without the slightest conflict throughout all the months of war. In proportion as she reposed confidence in others she won and retained their confidence and loyalty. The nursing profession is to be counted fortunate in having for so many years as one of its recognized leaders a woman whose practical experience in the most dangerous fields of its service developed a sympathy, tolerance and largeness of view, and who, at the same time, retained the spirit of energetic initiative with which she had begun her work.

The memory of that commanding presence,—the womanly face crowned with snow-white hair, the eyes radiant with energy and hope,—will remain with her friends and associates in the American Red Cross and elsewhere. Equally vivid will be her record upon the page of history as protagonist in the struggle which created and maintained the standards of American nursing. Her chief memorial is the administration from her room in the American Red Cross at Washington of the greatest army of relief ever mobilized.

H. M. MACCRACKEN.

Poughkeepsie, N.Y., 19 April, 1919.

SEX EDUCATION IN SCHOOLS.

Resolutions adopted at a Conference of Educators in January, 1919, representing schools and colleges of Maryland, Delaware, Virginia and the District of Columbia.

Whereas, the development of ideals of physical fitness is essential to the better conservation of national vigor and must include knowledge of the principal facts of sex; and,

Whereas, extensive inquiries show that young people are not receiving sex information from wholesome sources, but for the most part

from companions, and that the results of this information are generally harmful; and,

Whereas, a knowledge of the principal facts of sex and of right ideals is essential to an intelligent understanding of the fight against venereal diseases; and,

Whereas, a background of accurate knowledge and reverent attitude of mind is essential to a normal interpretation of sex problems;

Therefore, be it resolved that sex education should be included in the high school programmes of the United States, and that in working out the place of sex education in the high school the following principles be recognized:

1. That sex education be given its normal place in relation to physical education, biology, physiology, hygiene, general science, and such other subjects in which it has a rational place.

2. That it is desirable that such essential matters as reproduction in a few typical forms of plants and animals, elementary facts concerning ductless glands, including sex glands, the true significance of physiological changes occurring during puberty and adolescence, the main facts concerning the cause, manner of spreading, and possible results of gonorrhoea and syphilis, and the fundamental facts concerning heredity, be taught during the first year of high school.

3. That the courses in physical training, biology, physiology, hygiene, or general science, throughout the four years of high school, and especially during the last three years, should make definite provision for continuing the programme.

4. That, as soon as properly prepared teachers are available, a course in domestic science for girls in either the junior or senior year be provided, which will include a study of home nursing and sanitation, maternity, and care of the baby.

5. That, as soon as properly prepared teachers are available, a corresponding course for junior or senior boys be provided.

Be it further resolved that the universities, colleges, and normal schools be urged to prepare teachers who will be equipped to present facts and ideals of sex in their relation to the subjects taught in secondary schools, as previously outlined.

Be it also resolved that the United States Public Health Service and the United States Bureau of Education be requested to appoint a committee which will:

1. Co-operate with other organizations for the purpose of making the work in sex education effective, and which will

2. Prepare a manual to assist administrative officials and teachers in providing for courses as above suggested.

CONTROL OF VENEREAL DISEASES.

Officers of Canadian National Council for Combatting Venereal Diseases were elected as follows:

President, Mr. Justice Riddell, Toronto.

Vice-Presidents, Rev. Jasper Halpenny, Winnipeg; Rev. W. H. Vance, Vancouver; Mrs. Arthur Murphy, Edmonton; Lieutenant-Colonel J. W. S. McCullough, Toronto; Mr. M. H. Seymour, Regina; Hon. W. F. Roberts, St. John, N.B.; Rev. Herbert Symonds, Montreal; Mr. McClelland, Halifax.

Doctors, M. C. Hamilton, Toronto; Major J. G. Fitzgerald, Toronto; Rev. J. G. Shearer, Toronto; Dr. O. C. J. Withrow, Toronto; Dr. Peter Bryce, Ottawa; Dr. Page, Quebec; Major A. K. Haywood, Montreal; Dr. C. K. Clarke, Toronto; Miss Jean Gunn, Toronto; Hon. Treasurer, Mrs. A. M. Huestis, Toronto; General Secretary, Captain Gordon Bates, Toronto.

Chairman of Provincial Committees, Nova Scotia, Dr. W. H. Hattie, Halifax; New Brunswick, Dr. G. S. Melvin, St. John; Prince Edward Island, Dr. Jenkins; Quebec, Dr. A. H. DesLoges, Montreal; Ontario, Dr. Hodgetts, Ottawa; Saskatchewan, Mr. Hugh Dobson; Alberta, Dr. Heber Jamieson, Edmonton; British Columbia, Dr. Young; Manitoba, Mr. D. S. Harkness, Winnipeg.

LICENTIATES, COLLEGE OF PHYSICIANS AND SURGEONS
OF ONTARIO.

Lawrence Noble Armstrong, Kingston; Frederic Judson Bell, Toronto; Helen Young Bell, London; Charles Ernest Bond, Galt; Lionel George Brayley, Toronto; Arthur Harold Brown, Mimico; Munford Harold Bunt, Collingwood; Allan James Butler, Toronto; Edmund Allan Carleton, Roslin; Albyn Alphonsus Cauley, Montreal; Gordon Stuart Clancy, Newburg; William Duncan Cornwall, Toronto; Mary Logan Cowan, Seaforth; Hugh Gordon Hylvestra Cummins, Bridgetown, Barbados; Clifford John Devins, Thornbury; Vernon Booth Dowler, Toronto; Joseph Murray Doyle, Neola, Iowa; William Albert Elgie, Chatham; Charles Howit Elliott, Kingston; David Esser, Toronto; Farquhar Campbell Ferguson, St. Thomas; Norman Found, Bowmanville; Fred de Furlong Free, Campbellford; Clifford Davey Gallagher, Kingston; Egbert Gardiner, London; Arthur Melville Goulding, East Toronto; James Swift Hanley, Kingston; Lloyd Manhard Hanna, Lyn, Ont.; William Lorne Higginson, Inkerman, Ont.; Charles Leon Houghton, Ingersoll; Robert Albert Johnston, London; Newton Wilson Kaiser, London; C. Irma M. Kennedy, Wingham; Marion Grant Kerr, Toronto;

Elizabeth Lynd Kiteley, Bradford; George Frederick Laing, Windsor; James Robert Laing, Hamilton; Frederick Sylvester Lazenby, Toronto; Gerald Joseph Lunz, Drayton; Millard Thomas MacAvella, Kingston; Beetha Vivien Marvin, Belleville; John Russell Miller, Iroquois; Victor Henry Kingsley Moorehouse, Toronto; William Henry Wallace Morrison, London; Helen Maud Muir, Toronto; Thomas Francis Murray, London; Norman Dobson McLeod, Orillia; Lucy Grace Neelands, Forest; Charles Augustus Palmer, St. Ann's Bay, Jamaica, B.W.I.; Russel Stephen Patterson, Blantyre, Ont.; Leon A. Pequegnat, Kitchener; Stanley Henry Perkins, Brockville; Edward Henry Peterson, Hornepayne, Ont.; Leonard Wilfrid Pritchett, London; Edward Wellesley Reece, Georgetown, British Guiana; Earle Macbeth Watson, London; William Austin Werden, Mimico; Harcourt Irvine Wiley, Dresden, Ont.; Charles Morrow Wortman, London; Cecil Oswald Young, Toronto; Willard Jarvis Henry, Markdale; Peter Reid, Spokane, Wash., U.S.A.

The addresses of the Unit Medical Directors are as follows:—
Halifax, N.S., Bellevue Bldg.; Fredericton, N.B., Royal Bank Bldg.; Montreal, Que., Drummond Bldg.; Kingston, Ont., Golden Lion Block; Toronto, Ont., Keen's Bldg.; London, Ont., Royal Bank Bldg.; Winnipeg, Man., Notre Dame Investment Bldg.; Regina, Sask., McCallum-Hill Bldg.; Calgary, Alta., Lancaster Bldg.; Vancouver, B.C., Board of Trade Bldg.

There are subsidiary centres and offices in the following cities:—
Sydney, N.S., Moore Block; Charlottetown, N.S.; St. John, N.B., 28 Sydney Street; Quebec, Que., Langlois Bldg.; Ottawa, Ont., Plaza Bldg.; Hamilton, Ont., 303 Clyde Block; Edmonton, Alta., 614 McLeod Bldg.; Victoria, B.C., Central Bldg.

The purpose of this letter is to make clear to the medical profession of Canada the functions of the Department, with respect to medical treatment, and to outline the procedure which should be followed when returned soldiers present themselves for treatment.

If further information is required, application should be made to the nearest Unit Medical Director.

The Department appreciates the services which have been rendered to returned soldiers, in many cases without charge, by the medical profession, and it is hoped that the information given in this letter will prevent any misunderstanding as to the attitude of the Department in this connection.

F. MCK. BELL, Director of Medical Services,
Department of Soldiers' Civil Re-Establishment.

MEDICAL RESULTS, UNIVERSITY OF TORONTO.

The results in the Fifth Examination, University of Toronto, Faculty of Medicine, are as follows:—

Pass—W. P. J. Alexander, xMiss A. J. Anderson (Clinical Medicine, Clinical Surgery, Clinical Ophthalmology), D. B. Avison, J. C. S. Battle, F. J. Bell, Miss H. Y. Bell, L. G. Brayley, M. H. Bunt, E. A. Carleton, T. P. Carter, xW. m. Connell (Clinical Obstetrics and Gynaecology), W. D. Cornwall, Miss M. L. Cowan, H. C. Cruickshank, C. J. Devins, H. V. Dobson, V. B. Dowler, D. Esser, S. J. Evelyn, xF. W. Forge (Clinical Medicine, Clinical Surgery), N. Found, F. deF. Free, F. W. Graef, xD. Halliday (Medicine, Clinical Medicine, Clinical Surgery), xJ. V. Hayes, (Medicine, Clinical Medicine, Clinical Obstetrics and Gynaecology), J. C. Hill, Miss C. I. M. Kennedy, Miss M. G. Kerr, Miss E. L. Kiteley, xH. B. Lane, (Clinical Surgery), xF. D. Locke (Medicine, Clinical Medicine), W. D. Logie, Miss B. V. Marvin, J. R. Miller, xD. Muir (Clinical Obstetrics and Gynaecology, Clinical Ophthalmology), Miss H. M. Muir, W. S. McClinton, N. D. McLeod, Miss L. G. Neelands, R. S. Paterson, L. A. Pequegnat, E. L. Stoll, xM. E. Tiffin (Clinical Obstetrics and Gynaecology), C. O. Young.

C. B. Stover is granted aegrotat standing in the subjects of the Fifth Year.

THE TRAINING OF THE MEDICAL SPEECH SPECIALIST.

By Walter B. Swift, M.D., Expert Advisor Speech Defects.

Summary: A rather lengthy article on the training of the speech specialist shows the great value of oratory as giving the speech man an understanding of the psychology of dramatic development. Special scientific education is shown to be of value in giving the mastery of instruments in a psychological laboratory. As for example, the Harvard Psychological Laboratory, where Dr. Swift worked for over a year. The value of general medical training gives a medical background for diagnosis. General medical experience gives necessary first hand touch to medical diseases that is necessary in the background of speech. This medical training refers to the regular medical training, not to any of those little schools that imitate the real scientific medical instruction. Special medical training in nervous diseases and with foreign experts and our home experts is weighed in all its phases of value. Then Dr. Swift shows the value of home clinics, teaching, lecturing, and writing as final functions of an all-round development of the medical speech expert in one clinic in the United States, where all this training exists as the background of instruction there.

To Restore Nutritive Equilibrium

In cases of weak digestion and poor assimilation, resulting in chronic languor with loss of weight and energy, a speedy restoration of nutritive equilibrium should follow the use of **Grape-Nuts** food—

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Grape-Nuts consists of crisp, delicious granules of partially predigested whole wheat and barley with their contained cell salt—iron, calcium, magnesium, phosphorus, potassium, etc., which are essential for the repair of highly specialized animal tissue.

Grape-Nuts is a perfect health-retaining, tissue-building food, possessing high caloric value, requiring a minimum effort on the part of the digestive tract in converting it into good, rich blood.

It is not only a perfect food for those physically well, but is employed with advantage in the acute febrile diseases and during convalescence.

It is not uncommon to observe a distinct gain of ten pounds or more in weight during a few weeks’ use of **Grape-Nuts** food.

With cream, milk, or fruit juice, **Grape-Nuts** makes a tempting dish suitable at all times for old and young.

Samples of **Grape-Nuts**, **Instant Postum** and **Post Toasties**, for personal and clinical examination, will be sent on request to any physician who has not received them.

Canadian Postum Cereal Co., Ltd., Windsor, Ont.

QUEEN'S UNIVERSITY MEDICAL EXAMINATIONS.

The following degrees and prizes in medicine were awarded by Queen's University senate at noon to-day:

Degrees of M.D.C.M.—W. E. Berry, M.B., Dundas; W. S. T. Ronnell, M.B., Kingston; G. S. Cronk, M.B., Parham; J. B. Gallighan, M.B., Eganville. This makes a total of 67 M.D.C.M. graduates for the past session of the Medical College, 63 students having graduated last January as the result of a special war session during the Winter.

THE PRIZE LIST.

The prize winners were:

Faculty Prize, \$25, for the highest marks on the examination of the first year—J. H. Orr, Kingston, and A. R. Richards (equal).

Faculty Prize, \$25, for the highest marks on the examinations of the fourth year—G. H. Ettinger, B.A., Kingston.

The Book Scholarship, \$25, for the highest marks on examinations in anatomy of the second year—C. M. Emon, Ottawa.

The New York Alumni Association Scholarship, \$50, for the highest marks in physiology and histology of the second year (open also to art students in honor animal biology)—A. Clifford Baden, Kingston.

The N. F. Dupuis Scholarship, \$60, for the highest marks in chemistry of the second year—J. E. L. Imbleu, Renfrew.

The Dean Scholarship, \$50, for the highest marks on the examinations of the third year—C. M. Carruthers, Sarnia.

MEDICAL PREPARATIONS

AFTER THE LONG SCHOOL YEAR

The tired school child, whether girl or boy, is extremely liable to become vitally depressed, worn out both physically and mentally, and more or less anemic. With the coming of warmer weather, this depreciated condition becomes accentuated and it is the part of wisdom to take steps to build up the tone of the organism, enrich the vital fluid by creating new red cells, and hemoglobin, and employ every available means adapted to reconstruct the cells and tissues and restore the depleted vitality. Pepto-Mangan (Gude) does yeoman's service in such condition, by furnishing an agreeable, absorbable, and assimilable organic combination of iron and manganese, the agents most needed for blood repair, and general reconstruction. It is pleasant to take, and does not irritate the digestive organs nor cause constipation.

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PROSTATIC TROUBLES.

In the prostatic troubles of men who are nearing or passing the meridian of life, as well as symptoms that are its concomitant, as difficult urination, sexual decline and premature decay, sanmetto is an indicated remedy. It is a remedy par excellence for these affections which befall men after the age of fifty. It is also a valuable remedy in case of ovarian and mammary affections in females. Sanmetto has been before the profession for a quarter of a century and has proved its right to stay. It is a soothing and building tonic to the reproductive organs and the mucous surfaces.

GLYKERON.

A generation or more ago, the sentiment of the medical profession was in favor of descriptive names of ethical remedial agents; the opinion prevailed that names indicative of the composition of pharmaceutical agents offered ample protection against confusion. It was in conformity with this sentiment that Glyco-Heroin was selected as the most appropriate name for what has come to be one of the most universally esteemed respiratory sedatives.

But experience ultimately proved that the non-descriptive appellation affords a much greater measure of protection against confusion. Accordingly, Glykeron was selected as an alternative name for this preparation.

Glykeron and Glyco-Heroin now being synonymous appellations, and familiar as such to all dispensing pharmacists, the physician may use these names interchangeably when prescribing what was originally known only as Glyco-Heroin (Smith). Since Glykeron is the more distinctive appellation, its use is suggested to physicians when prescribing this well-known preparation for cough, bronchitis, pneumonia, phthisis, whooping-cough and kindred affections of the respiratory system.

A RECORD OF GOOD WORK.

Cigarettes to the value of, in retail prices, of over half a million dollars. The boys at the front were most grateful for these gifts of cigarettes, which, in the words of one of their commanding officers, "Did much to alleviate and make the men forget the discomforts, incidental to active service".

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