

## Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

- Coloured covers /  
Couverture de couleur
- Covers damaged /  
Couverture endommagée
- Covers restored and/or laminated /  
Couverture restaurée et/ou pelliculée
- Cover title missing /  
Le titre de couverture manque
- Coloured maps /  
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /  
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /  
Planches et/ou illustrations en couleur
- Bound with other material /  
Relié avec d'autres documents
- Only edition available /  
Seule édition disponible
- Tight binding may cause shadows or distortion  
along interior margin / La reliure serrée peut  
causer de l'ombre ou de la distorsion le long de la  
marge intérieure.
  
- Additional comments /  
Commentaires supplémentaires:

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /  
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /  
Qualité inégale de l'impression
  
- Includes supplementary materials /  
Comprend du matériel supplémentaire
  
- Blank leaves added during restorations may  
appear within the text. Whenever possible, these  
have been omitted from scanning / Il se peut que  
certaines pages blanches ajoutées lors d'une  
restauration apparaissent dans le texte, mais,  
lorsque cela était possible, ces pages n'ont pas  
été numérisées.

THE MANITOBA AND WEST CANADA

# LANCET

*A Journal of Medicine, Surgery, Physiology, Chemistry, Materia Medica and Scientific News, being the journal of the Winnipeg and Manitoba Medical Associations.*

Published Monthly. Subscription \$1 per annum in advance. Single Copies 10c.

VOL. 6.

WINNIPEG, MARCH, 1899.

No. 11.

## FREE for a POSTAL

Desirous that every physician may have opportunity to make trial of

DUNCAN FLOCKHART & CO'S

## FLEXIBLE CAPSULES

I am instructed by Messrs. D. F. & Co. to send working samples to every physician making application for same. List of Capsules will be forwarded on request.

R. L. GIBSON, 86 Wellington St., West, TORONTO.

## Lactopeptine Tablets

Same formula as Lactopeptine Powder Issued in this form for convenience of patient—who can carry his medicine in his pocket, and so be enabled to take it at regularly prescribed periods without trouble.

"Everything that the science of pharmacy can do for improvement of the manufacture of Pepsin, Pancreatine, and Diastase, has been quietly applied to these ferments as compounded in Lactopeptine."

THE MEDICAL TIMES AND HOSPITAL GAZETTE.

Can be ordered through any Druggist. Samples free to medical men.

New York Pharmacal Association,

88 Wellington St., West, Toronto.

## WAMPOLE'S ANTISEPTIC SOLUTION

FORMOLID

Formaldehyde.....	1/2	per cent
Acetanilid.....	1/2	" "
Boroglyceride.....	1	" "
Sodium Benz Borate.....	3	" "
Eucalyptol Thymol. of Gaulthera.		
Alcohol. Witch Hazel.		

Absolutely safe.  
Non-irritant.  
Prophylactic.

16 oz Bottle 50c.

### DIRECTIONS.

#### EXTERNALLY.

**Dental.** A non-poisonous, palatable Antiseptic and Germicide, useful in all stages of operative work. Non-irritant. FORMOLID, pure or diluted, as indicated.

**Surgical.** For wounds, cuts, bruises, burns and scalds, etc. Prevents suppuration. Formolid, 1 part; water, 1 to 10 parts.

**Mouth Wash.** To preserve the teeth, sweeten the breath, harden the gums, etc. Formolid, 1 part; water, 4 to 20 parts.

**Gargle, Nasal Application, etc.** For inflamed mucous surfaces. Prophylactic. Formolid, 1 part; water 2 to 10 parts.

**Vaginal Douche, Deodorant, Germicide.** For Leucorrhœa, Vaginitis, etc. Formolid, 1 part; water, 5 to 20 parts.

**General.** A healing antiseptic. Personal Hygiene. Excessive perspiration. Formolid, 1 part; water, 1 to 20 parts.

#### INTERNALLY.

In fermentative dyspepsia, diarrhœa, cholera infantum, cholera morbus, etc.

**Dose.** One-half to two teaspoonfuls in water three or four times daily, as indicated. Can be given in combination with other medicines, except digestive ferments.

# DIABETIC FLOUR

The Gluten Entire Wheat  
Flour is commended by the  
Medical Faculty as almost the  
only available and palatable  
bread food for the Diabetic.

Sold by

**JOHN F. HOWARD & CO.**

Chemists and Druggists,

WINNIPEG, MAN.

---

## HOWARD'S HARD WATER TOILET SOAP

Is the only soap which makes washing in the HARD  
WATER of this country as pleasant as with the pur-  
est rain water. Its purity is such that it may be  
used on the tenderest and most sensitive skin—even  
that of a new born babe.

MANUFACTURED BY

**JOHN F. HOWARD & CO.,**

Chemists and Druggists,

Opposite Post Office.

Winnipeg, Man.

# The Growing Development of Practical Medicine

IN HÆMATHERAPY, OR BLOOD TREATMENT.

**BLOOD, AND BLOOD ALONE**, is physiologically ascertained to be the essential and fundamental Principle of Healing, of Defense, and of Repair, in the human system and this Principle is now proved, by constant clinical experience to be practically available to the system in all cases, to any extent, and whenever needed, internally or externally.

**Leeming, Miles & Co**

MONTREAL,

And the same overwhelming clinical demonstrations have also proved that the vitality and power of Bovine Blood can be and are **PRESERVED**, unimpaired, in a portable and durable preparation sold by all druggists, and known as Bovine. Microscopic examination of a film of Bovine will show the **LIVING BLOOD CORPUSCLES** filling the field, in all their integrity, fullness, and energy; ready for direct transfusion into the system by any and every mode of access known to medical and surgical practice: alimentary, rectal, hypodermical, or topical.

In short, it is now an established fact, that if Nature fails to *make good blood*, *we can introduce it*. Nothing of disease, so far, has seemed to stand before it.

Apart from private considerations, these facts are too momentous to mankind, and now too well established to allow any reserve or hesitation in asserting them to the fullest extent.

SOLE AGENTS FOR

**Dominion of Canada.**

We have already duly waited, for three years: allowing professional experimentations to go on, far and near, through the disinterested enthusiasm which the subject had awakened in a number of able physicians and surgeons, and these daily reinforced by others, through correspondence, and by comparison and accumulation of their experiences in a single medical medium adopted for that provisional purpose.

It is now laid upon the conscience of every physician, surgeon, and medical instructor, to ascertain for himself whether these things are so: and if so to develop, practise and propagate the great medical evangel, without reserve. They may use our Bovine for their investigations, if they cannot do better, and we will cheerfully afford every assistance, through samples, together with a profusion of authentic clinical precedents, given in detail, for their instruction in the philosophy, methods and technique of the New Treatment of all kinds of disease by Bovine Blood, so far as now or hereafter developed.

Among the formidable diseases overcome by the Blood Treatment, in cases hitherto desperate of cure, may be mentioned: Advanced Consumption: Typhoid Fever, Pernicious Anæmia: Cholera Infantum, Inanition, etc.; Hemorrhagic Collapse; Ulcers of many years standing, all kinds; Abscesses: Fistulas: Gangerene; Gonorrhœa, etc.; Blood-Poisoning; Crushed or Decayed Bones; Mangled Flesh, and great Burns, with Skin Propagation from 'points' of skin; etc., etc.

N. B. Bovine is not intended to be, and cannot be made, an article of popular self-prescription. As it is not a stimulant, its extended employment in the past has been, and the universal employment to which it is destined will be, dependent altogether on the express authority of attending physicians. Address:

## The Bovine Company,

495 West Broadway, New York

# The Equitable Life

## ASSURANCE SOCIETY

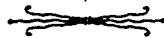
— OF THE UNITED STATES



JANUARY 1, 1897.

Assets.....	\$216,773,947
Reserve on all Existing Policies and all other Liabilities.....	173,496,768
(Calculated on a 4 per cent standard)	
Undivided Surplus on 4 per cent Standard	48,277,179
Outstanding Assurance.....	915,102,070
New Assurance Written.....	127,694,084
Amount Declined.....	21,678,467

Instalment Policies stated at their commuted value.



The Society has paid \$253,956,351 to its policy-holders, and in addition, now holds \$216,773,947 of Assets (of which \$48,277,179 is Surplus) making a total of \$470,730,298. This record, covering a period of less than thirty-seven and a half years from its organization, is over \$212,793,000 more than any other Company has paid and accumulated within the corresponding period of its history.

STATEMENT VERIFIED BY

GEORGE W. PHILLIPS, } Actuaries FRANCIS M. JACKSON, } Auditors.  
J. G. VAN CISI, } ALFRED W. MAINE, }

Western Canada Department

**A. H. CORELLI, Manager,**

**435 Main Street, Winnipeg.**

# W. R. INMAN & CO.

Established in Manitoba in 1879.

## IMPORTERS OF

PHYSICIANS' POCKET AND  
BUGGY MEDICINE  
CASES.

OBSTETRIC BAGS.

POCKET INSTRUMENT  
CASES.

THERMOMETERS.

ARTIFICIAL EYES

SPECTACLES

ALL KINDS,  
ACCURATELY FITTED.

We can save you money. If in need of  
any goods in our line, send for Illustrated  
Price List.

Liberal Discounts allowed Physicians.

**W. R. INMAN & CO.,**

Druggists and Opticians,

**WINNIPEG.**

ALWAYS OPEN

**C. H. CRANSTON,**

**Druggist,**

480 MAIN ST.

WINNIPEG.

# The Winnipeg Rubber Company, Lt'd

## Rubber Goods

FOR THE DRUGGISTS AND SURGICAL TRADE.

### Some of Our Specialties.

#### ATOMIZERS,

AIR PILLOWS,

AIR BEDS,

ABDOMINAL SUPPORTERS,

AIR CUSHIONS,

BED PANS,

BANDAGE GUM,

BATHING CAPS,

EMPIRE ELASTIC BANDAGS,

BREAST SHIELDS,

BREAST PUMPS,

CORKS,

BULBS,

CRUTCH TIPS,

CATARRH DOUCHE,

DENTAL DAM,

DIAPHRAGMS

DUNNAGE BAGS,

SILK ELASTIC STOCKINGS,

SILK ELASTIC KNEE CAPS,

SILK ELASTIC ANKLETS,

FEVER COILS,

GAS BAGS,

GUTTA PERCHA TISSUE,

UMBILICAL TRUSSES,

HEAD COILS

HORSE COVERS,

RUBBER CLOTHING

#### INVALID RINGS,

ICE BAGS, (Head and Spinal),

MEDICINE DROPPERS,

NIPPLES, NURSING BOTTLES,

OPERATING CUSHIONS,

PLANT SPRINKLERS,

FAMILY SYRINGE,

INFANT'S SYRINGE,

NASAL DOUCHE SYRINGE,

ULCER AND EAR SYRINGE

COMB. E. EN. & I. SYRINGE,

COMBINATION SYRINGE,

FOUNTAIN SYRINGE.

LADIES' SYRINGE,

HARD RUBBER SYRINGE,

PRACTICAL SYRINGE

WHITE HOSPITAL SHEETING,

Single and Double Coated.

STOMACH TUBES,

SANITARY COVERS,

PURE GUM TUBING,

SYRINGE TUBING.

URINALS,

HOT WATER BOTTLES,

WATER PILLOWS.

WATER BEDS,

SPINAL WATER BOTTLES

## MECHANICAL RUBBER GOODS.

Write for our Prices before Purchasing.

P. O. Drawer 1251

Telephone 271.

350 Main St., Winnipeg, Man.

EVERYTHING IN RUBBER.

THE MANITOBA AND WEST CANADA

# LANCET

*A Journal of Medicine, Surgery, Physiology, Chemistry, Materia Medica and Scientific News, being the journal of the Winnipeg and Manitoba Medical Associations*

Published Monthly. Subscription £1 per annum in advance. Single Copies 10 cents.

VOL. 6.

WINNIPEG, MARCH, 1899.

No. 11.

## SELECTED ARTICLES.

### TUBERCULOSIS.

For generations the medical community, as well as the general public, have, in the campaign with phthisis and tubercle, been content to act only on the defensive. For many years they clung to the erroneous idea that this fell disease was hereditary and incurable; the researches of the latter half of the present century have revealed many interesting facts which have revolutionised these crude ideas and placed us all in a position to help in the possible extinction of this dreaded enemy of the human race. It was no easy discovery that phthisis is due to a specific organism, for even after it had been proved and universally accepted that many of the zymotic diseases were due to bacteria, it could not be demonstrated that tubercle was. And why? Because the bacillus tuberculosis defied the stains that were then used for the other organisms. Research then had to be made for a useful stain, and one which could be used as a distinctive test and a diagnostic factor. This was soon forthcoming, and now we are able to catch the enemy in his lair, and point to the offender, yes, and fix him and stain him. The organism, then, being found, identified, and his habits and mode of development studied, it can be safely asserted that tubercle is no more hereditary than is typhoid fever or diphtheria. The only thing that we can truthfully say is, that there is hered-

itary tendency to it by the preparation of the constitution for the encouragement of its growth, should it find an entrance into the system. Even this declaration is in all probability too boldly made, and we shall find ere long that the tendency to tubercle is not so very great after all.

The next discovery of importance was: Tuberculosis, even if manifested as phthisis, is curable. This fact should have been more readily seized and utilised in studying a cure; for it had long been observed that patients placed under good hygiene, and surrounded by a healthy atmosphere, either recovered or improved greatly. More than this, the various hospital autopsies proved that individuals dying from other causes had during some portion of their life, been the subjects of tuberculosis of the lungs.

Another important discovery, which is only just being utilised, is the fact that tuberculosis is contagious; not, however, by contact with the individual suffering therefrom, but through the inhalation of the organisms or spores expectorated by the sufferer. Sir William Broadbent in a recent speech went so far as to say that if they could secure the destruction of all that was ejected from the lungs of persons suffering from phthisis, and ensure a supply of milk and meat absolutely free from tubercle bacilli, all tuberculous disease would cease from the land.

Two things have recently been firmly established: That tuberculosis is curable, and that it is preventable. How far, then,



are we to work in the accomplishment of both these desiderata? The answer has been given in no uncertain tone by the various meetings that have been held during the last few days. The undertaking is a large one, but it is worthy of serious and earnest work. It was only right that London should lead the campaign, and equally desirable that the bugle call to arms should come from a Royal source. The large meeting at Marlborough House, under the presidency of the Prince of Wales, was a fitting emblem of the determined action to be adopted. We regret that the speeches did not go further than some of them did, for we maintain that compulsion is necessary in some cases to bring opponents to the right course; and though compulsory notification of tuberculosis is not at present desirable, owing to the many forms it may assume, yet it would have been as well, in the inauguration of a National Association, to have left out any reference to the future work and probabilities. As was pointed out by a speaker at the recent meeting at Plymouth, conscientious objectors have been created by Act of Parliament. The National Association for the Prevention and Cure of Consumption has much work to perform, and it is with an immense degree of satisfaction that the founders, as well as all interested in the public health, have watched the prompt action taken by Local Authorities in all parts of the United Kingdom. Although England does not suffer to the extent that France and Germany do, yet Englishmen are beginning to be left behind them in the determined effort to cure or exterminate the evil. The French and Germans for several years have had specialised sanatoria for outdoor treatment of phthisical patients, the success of which is undisputed. We have scarcely thought of the establishment of such sanatoria, and the few that are already in operation in Great Britain are of such small dimensions as to be but little use for statistical purposes, although the proprietors or founders of these are quite satisfied with the results, and are sanguine of their ultimate success. Ireland is not going to be behind in the organisation of such sanatoria

for on February 20th a concert was held in aid of the initial expenses for shelters in connection with the open-air treatment of consumption at Forbreda Hospital. Limelight scenes of the various German sanatoria were shown, and proved an interesting and useful education for the audience.

Bovine tuberculosis needs a careful study, as the milk from tubercular cattle is one of the chief sources of the disease in children; and now that so many mothers, for different reasons, unable to feed their offspring in the way provided by nature, milk from the cow must be the chief substitute, and as so many of the poorer classes are unable to afford the specialised and sterilised milks now in the market, it will become a necessity for the Public Authorities to see that the milk supply is not only free from adulteration and that the cream has not been removed, but they will have to ensure that the milk is also free from tubercle bacilli or spores. The subject has already received attention, and the method of operation is to maintain the freedom from tuberculosis of the milch cattle. Fortunately this is readily accomplished by the tuberculin test, and some enterprising private companies have already adopted it without any pressure being brought to bear upon them by legal enactments. As, however, this means the rejection of about one-third of the present milch kine, we are afraid it will not be universally adopted unless some pressure is brought to bear, and this must be done if it can be proved to be for the general welfare of the public. By these means we think the death-rate of children from tubercular enteritis and peritonitis would be largely decreased, besides tending to ensure a healthier future generation.

The meat question has also received attention in several districts during the past few days, and we are pleased to notice that it is with a general desire to obtain meat free from tubercle. It has not at present been satisfactorily decided how far meat slightly affected by tubercle is a cause of the disease in humanity; the argument is that the bacilli and spores would be all destroyed during the process of cooking. This argument we

consider has not been definitely determined, owing to the various methods of cooking and the extent to which different portions are exposed to heat: personally we prefer our meat free from tubercle—if we can get it. If meat is to be sold when only slightly affected, let it be sold as such, and make it a legally essential point that the vendor declare its nature. We think that no further legal enactment would prove necessary to ensure the freedom of tubercle in our meat supplies, as there are few who would knowingly purchase, even at a reduced price, diseased meat.

Another factor in the cause of phthisis is overcrowding. This has been known for many years, and strenuous efforts are being made to minimise the evil; but in our large towns and cities there is still much to be done. The methods of exit from the crowded places must be made easy and cheap; the difficulty does not seem to lie so much with the preparation of suitable dwellings in the suburbs, but as to how the populace are to be conveyed thither at such a time as they are desirous of going. The chief railways seem wholly unable to cope with this trouble, and the trains are overcrowded to an unwarranted extent at such hours; for whilst the law steps in and prevents the overcrowding of omnibuses, it demurely leaves alone the railway system, and the railway officials themselves look on encouragingly rather than endeavor to grapple with the dilemma by the greater frequency of train service, the increase of the number of popular carriages, and the better regulation of admittance to the platform. These statements do not refer to London alone; other large towns suffer equally; indeed, wherever it is a desideratum to prevent overcrowding these circumstances exist.

If 70,000 persons die every year from tuberculous disease—which for Great Britain and Ireland is a very moderate computation—at least 200 persons must catch the disease every day. It is the realisation of this fact which has called into existence the National Association for the Prevention of Consumption and other Forms of Tuberculosis. The mission of the Association is to carry into every dwelling in the land an elementary

knowledge of the modes in which consumption is propagated, and of the means by which its spread may be prevented, and thus to strengthen the hands of medical men through out the country who are dealing with the disease. To this end the public must be educated, and the instinct of self-preservation aroused. The objects of the Association are briefly as follows:—1. To educate the public as to the means of preventing the spread of consumption from those already suffering from the disease. 2. To extinguish tuberculosis in cattle. 3. To promote the erection of sanatoria for open-air treatment of tuberculosis disease. There is no “specific” for consumption. In the words of Sir Samuel W. Wilks, the only remedies are “air and sunshine—air, fresh air.” The treatment is applied at Falkenstein, Gohersdorf, Davos, and several places in the Riviera and elsewhere, with most excellent results. Experience gained in Edinburgh, Norfolk and Ireland has demonstrated that the most satisfactory results can be obtained at home. The Association, therefore, advocates the erection of sanatoria for every large centre of population. Poor-law authorities will sooner or later find that it is more economical to provide sanatoria, where tuberculous paupers may recover, than to send them to infirmaries to die. Municipalities will consider it their duty to defend the populations over whose interests they watch from consumption, as they now do from fever, by the erection of sanatoria; and the charitable public generally will help. Meanwhile in London a beginning is to be made by a self-supporting sanatorium, which will minister to the needs of the class which lies between the rich and the poor.

Dr. Theodore Williams, speaking at a meeting in Plymouth on February 21st on behalf of the objects of the National Association for the Prevention of Consumption, said the first thing they wanted to do was to interest the public in the subject. So many had relatives or friends stricken down by this terrible disease that the time had come for all classes, the Government, public bodies and, above all, the public, to interest themselves in it. They also wanted to do something to secure the supply of milk

free from tubercle bacilli, and to establish open-air sanatoria for the treatment of consumption. Consumption was a terrible malady—terrible not only in its mortality, but in the fact that it attacked people at an age when they were of most use to the community, the young and the middle aged falling victims to it more readily than the old and infants. The primary cause of consumption was unquestionably the bacillus tuberculosis, but the predisposing causes were almost as important as the bacillus itself. Chief among these were improper food, bad or unhealthy occupations, damp soil, overcrowding in dwellings, and hereditary predisposition. By hereditary disposition he did not mean that the bacillus was handed on from father to son. All that was handed on was that condition of constitution which enabled the bacillus to enter and do its fell work. Although consumption was contagious it was to so little an extent that the precautions against it were comparatively easy. The actual contagious material was contained almost entirely in the expectoration which came from the lungs, and each little expectoration often contained millions of bacilli. The microbe was a non-mobile creature, but it was blown about as dust, and in that way inhaled into the lungs. To prevent the dissemination of the bacilli in this way it was necessary to destroy the sputa either by burning or by antiseptics. In the milk the microbe could be destroyed by boiling the milk. Nature also provided a remedy within the body, for there was a constituent in the blood which fought and destroyed the bacillus. In the treatment of consumption, therefore, it was necessary to do everything possible to improve the condition of the blood. The open-air treatment consisted of placing the patient in such a position that practically he or she lived in the open air. That was difficult in our changeable climate, but it could be done, and the sanatoria which were to be erected would be so arranged that the patients, while sheltered from storms, would practically live in the open

air. Nothing more quickly destroyed the tubercle bacillus than sunshine and air. It had been said that England was behind in the prevention and treatment of consumption. But there was no country in the world that had done so much for the treatment and prevention of consumption than England. In 1838 the death-rate from consumption was 3800 per million. In 1896 only 1305 per million died from consumption. Since 1861 they had reduced the death-rate from consumption in England by one-half. What had other countries done? In London in 1888 the death-rate from consumption was 1750 per million. In Paris, in those two years, the figures were 4483 and 4093 per million respectively. In Berlin in the same periods the rates were 2807 and 2'93 per million. In regard to the death-rate from consumption, England was far ahead of any other country. But they had reached a point below which they found it difficult to still further diminish the death-rate. Improved drainage, better dwellings for the poor, the Factory Acts, and other measures had contributed to the large reduction in the mortality from consumption.

#### CONFERENCE IN EDINBURGH ON CONSUMPTION.

##### OPINIONS OF MEDICAL EXPERTS.

A report has been published by the Public Health Committee of Edinburgh Town Council dealing with the conference which took place on the 9th inst., in Edinburgh City Chambers between the sub-committee of the Public Health Committee on the Prevention of Consumption, representing the Town Council, and representatives of the Medical Faculty of the University of Edinburgh, the Royal Colleges of Physicians and Surgeons, the Edinburgh Veterinary College, and the New Veterinary College, Edinburgh. The Chairman pointed out that the scope of the inquiry was:—(1) The preventability of the disease; (2) its curability; (3) the question of sanatoria; (4) liability to the disease, and the question of heredity; and (5) the question of the notification of the

disease. Dr. James Andrew, President of the Royal College of Physicians, in a brief opening statement, stated that undoubtedly there were many people, many families, who, though they might not be born tuberculous, had by inheritance a constitution which strongly predisposed to this disease. Sanatoria were still upon their trial, but an hospital for advanced cases he considered to be a great and immediate want. Sir Thomas Grainger Stewart favoured a full and ample trial of sanatoria, but with regard to notification he believed we were scarcely yet in a position to propose it as a compulsory measure.

Professor Chiene, President of the Royal College of Surgeons, said that with regard to notification he believed that any attempt at that, at the present moment, would be in advance of public opinion, and no laws could ever compel people, unless the people themselves were desirous of following those laws. As regards milk, he did not think that the city could step in and apply the tuberculin test to the cows that were in the byres of the city until the tuberculin was supplied by the Government. He thought that as long as it was in the open market, and could be obtained by anyone, then much harm would come from attempting to apply the test to the cows as we had them at present in our byres. He could believe that it might be possible, if the tuberculin were supplied by the Government, to apply the tuberculin test to the cows that were brought week by week to the city before they were sent to the byres.

Dr. Claud Muirhead said that, curable as he believed consumption to be in the early stage of the disease, he did not believe that they would ever be able to cope with it as they could with typhus fever, or hope to stamp it out as they possibly might do typhus. They might greatly reduce the mortality from this terrible scourge, and he sincerely hoped they would, but consumption would be always with us.

Professor Greenfield said he believed

that in the vast majority of cases the infection of consumption was conveyed by contagion from one person to another, especially by the sputa. But they must allow also the possibility of infection by milk, and it was therefore very important that children in fever hospitals should have the milk sterilised (or that it should be free from possible tuberculosis). And he must confess that he did not think there was any difficulty in sterilising all the milk in a large institution.

Dr. R. W. Philip, speaking on notification, said he should like to make two admissions. The first was this, that he conceived notification to be the only logical solution of the tuberculosis problem. On the other hand, he believed that medical opinion, and, he suspected, public opinion, was not sufficiently formed to admit of their pressing compulsory notification at the present time. His second admission was therefore that, with Sir Henry Littlejohn, he hesitated to insist on notification meanwhile.

#### MILK AS A VEHICLE OF DISEASE.

At the annual meeting of the Social and Sanitary Society of Edinburgh, Dr. Nasmyth, Medical Officer of Health, Cupar-Fife, read a paper on "Milk as a Vehicle of Disease," or "Milk-born Disease." After referring to the enormous use of milk as a food, he said milk to the bacteriologist was a valuable medium for the cultivation of bacteria, as it contained those chemical ingredients necessary for bacterial growth, and that circumstance was very interesting from the fact that milk was, therefore, exceedingly liable to become the vehicle for the growth and transference of disease micro-organisms, from animals to persons and from person to person in various ways. To show that this was so, an experiment had been made, which showed that a cubic inch of milk containing 153,000 bacteria exposed for an hour at a temperature of 59 deg. Fah. contained 530,750, two hours afterwards 616,250, four hours 680,000, and twenty-five hours 85,000,000. That and other ex-

periments showed the very high nutritive value of milk for bacteria, and also the greatly increased value due to high temperature. The practical value to consumers of milk was that present day milk ought to be first boiled (sterilised) and then refrigerated.

They were, he thought, inclined to attribute all disease to the presence or effects of bacteria, and were apt to ignore the influence of what he might call foreign bodies in milk, which might, and doubtless did, cause a considerable proportion of digestive disturbances in infants and children. He referred to such matters as particles of straw, hay, hairs, litter and dust, which too often they found at the bottom of the tumbler, after the milk had been drunk.

Their presence in the milk, however, must be taken into consideration, not only from their own inherent evil effects, but because they acted as rafts for the conveyance of bacteria to the milk. Certain specially infective diseases were conveyable by milk as a medium, and Dr. Nasmyth devoted the remainder of his remarks to that subject. Cholera, he said, was a microbic disease. Diphtheria was another. An outbreak of diphtheria at Hendon elicited the fact that there was a special incidence of the disease on those members of the households who used unboiled milk, and that families who used habitually boiled milk quite escaped. The domestic cat, it was well known, suffered from this disease, and in his own experience several cases of diphtheria occurred in a family which he had good reason for suspecting originated with the cat, which had been helping itself to milk meant for the children's use. Scarlet fever was also connected with milk, and they had now got to the time for tabulating such outbreaks not due to milk rather than those due to milk.

Dr. Nasmyth, after giving some details as to the ways by which the infection was brought into the milk, said it was abundantly established that milk was accountable for many out-breaks of enteric fever.

There were various ways by which it might reach the milk supply—by aerial currents conveying the bacilli which had been liberated by the evaporation of the medium in which they were, by attendants on enteric fever handling milk vessels while their clothes and hands were infective, and the commonest way of all was through polluted water either having been added to the milk or used for cleaning the milk utensils. A water supply for dairies, he added, should be entirely above suspicion. The lecturer then proceeded to give a brief abstract of the relationship of milk and tubercular disease. The proportion of tuberculosed cows, he said, was very variously stated by different authorities in different countries, and while it was of scientific interest to know what was the ratio of tuberculous to sound cows, for their purposes a small ratio of tuberculosed cows in a byre was quite sufficient to infect the whole milk, when they kept in view how suitable a medium it was for the growth and multiplication of micro-organisms. One cow in a dairy with a tuberculosed udder would be sufficient to contaminate all the rest of the milk with which it was mixed and one tuberculosed cow might affect all the others in the byre.

In advancing proof that the milk of such cow was infective, Dr. Nasmyth remarked that veterinary inspectors found very great difficulty in diagnosing limited tubercle in cows' udders, and as experiments had shown that tuberculous milk caused human tubercular disease, among animals, analogy would lead them to believe that the same results would happen to individuals. It had been shown that the form of tubercle mostly affecting children, who, of course, lived much on milk, was on the increase, while tubercular diseases as a whole had diminished in recent years in Scotland. Concluding his remarks, he said that if they wished to eradicate tuberculosis they must aim at the causes that led to infantile tuberculosis. The first thing to do, so long as milch cows were allowed to remain in dairies, was to boil all milk used for children, and the next thing was to agi-

tate for the removal of tuberclosed cows from dairies. When the agitation was wide-spread legislation would follow. He then moved the following resolution:—"That this meeting agrees to petition Parliament to favour the elimination of tuberculosis in cows by insisting that all dairymen and purveyors of milk shall only be registered as such on the production of a certificate that their cows are free from such disease."

### THE ARTIFICIAL FEEDING OF INFANTS.

By L. C. Holcombe, M.D., Milton, Vermont.

In bringing this subject before the society, it is not with the idea of presenting anything new; but, having had some experience with what were--to me--difficult cases of infant-feeding, and realizing how far short of the ideal composition nearly all substitutes for mother's milk are, I have made this section, believing that its discussion will prove beneficial to us all.

The problem of the proper feeding of infants is becoming of greater importance each year owing to the increasing number of mothers who, because of inability or disinclination, fail to nourish their offspring from the maternal breast; and to the fact that the method of wet nursing is not so common as formerly—a suitable wet nurse being generally unobtainable.

Most practitioners agree that the best nourishment for infants is modified cow's milk. Unfortunately, the most approved methods of artificial feeding, such as can be furnished by a milk laboratory, are not as yet within reach of many of us. Rotch, to whom we are indebted for the establishment of the milk laboratory, has demonstrated that it is possible to secure similar results by the "modification" of milk at home.

As the composition of cow's milk differs greatly from that of human milk, the preparation of cow's milk as a substitute food for the infant involves considerable care and intelligence on the part of the mother or nurse. Human milk is a sterile alkaline fluid, varying largely in its composition; cow's milk, by the time it reaches the con-

sumer, is acid and—unless the greatest care has been exercised—crowded with micro-organisms. In order to secure an infant food which in its chemical and physical properties closely approximates average woman's milk, the problem presented is: 1st, how to devise the simplest means of overcoming these differences; 2nd, how to recognize in the various digestive disturbances in the child, which of the elements of cow's milk is causing the disturbance; and 3rd, how to vary the proportion of some of the ingredients—fat, sugar, and proteids—to meet exactly the requirements of the individual infant.

The method of home modification of cow's milk is not free from objections—deficiencies are recognized both theoretically and practically—but its results are far more reliable and satisfactory than those obtained by the administration of proprietary foods. L. Emmett Holt, in referring to these foods, says: "As a class then, infant-foods contain an excess of carbohydrates, and many of them a large percentage of unchanged starch. The proteids, though often sufficient in amount, are chiefly vegetable, and not animal proteids. Without exception, they are lacking in fat, and therefore do not furnish all that the growing organism requires. They should not be used except in those forms of indigestion where we desire temporarily to withhold fat and casein, and to employ as food only carbohydrates. They cannot be used as exclusive foods for any considerable period without disastrous results. Their continued use without some addition of fresh milk should never be countenanced."

To turn, then, to the home modification of cow's milk. Absolute simplicity is desirable in the materials used, and in the method employed.

Cow's milk used for infant-feeding must come from healthy animals—preferably from a mixed herd rather than from a single cow—should be clean, and as fresh as possible. As tuberculosis is more common in Jerseys than in other breeds, the cows should be of a common breed—and such as give moderately rich milk. The milk should be thoroughly strained, and may also be filter-

ed through a funnel containing sterile absorbent cotton, as recommended by Seibert, who claims that by this method the bacteria are reduced in numbers one-half.

Having a milk reasonably free from organisms, the other materials necessary are a clean glass vessel—a fruit jar will do—into which the milk is put, some milk sugar, some fresh lime water, and some clean drinking water which has been boiled for five minutes. The mouth of the jar is covered with a clean cloth to prevent contamination, and left open for a few minutes to dispose of animal heat. The jar is then sealed tightly and put upon ice or left in ice-water for from four to twelve hours. At the end of four hours, the cream which has risen from average milk will contain about 8 per cent. fat, and is spoken of as 8-per-cent. cream. After six hours, the cream will be 12-per-cent. cream—the same as gravity, or skimmed cream. Ordinary separator or centrifugal cream contains 20 per cent. fat.

The science of feeding infants artificially

is based on the general average chemical and physical properties of human milk, calculated from the milk of many healthy mothers at the same periods of lactation. The following table giving the result of recent analyses shows the differences to be overcome in modifying cows' milk for infant-feeding:

	Woman's milk average %	Cow's milk average %
Fat.....	4.00	3.50
Sugar.....	7.00	4.30
Proteids.....	1.50	4.00
Salts.....	0.20	0.70
Water.....	87.00	87.50
	100 00	100 00

The most important changes necessary in cow's milk are, therefore, a reduction of the proteids and salts, and an increase of sugar.

The following schedule for feeding an average healthy infant from birth upon modified cow's milk has been deduced by American Pediatricists:

No.	Age.	Fat per cent.	Sugar per cent.	Proteids per cent.	Daily quantity Ounces.
I.	First and second day.....	—	5.0	—	4-8
II.	Third to fourteenth day.....	2.0	6.0	0.60	10-15
III.	Two to four weeks.....	2.5	6.0	0.80	20-30
IV.	One to three months.....	3.0	6.0	1.00	22-36
V.	Three to five months.....	3.5	6.0	1.25	28-38
VI.	Five to six months.....	4.0	7.0	1.50	32-38
VII.	Six to nine months.....	4.0	7.0	2.00	34-42
VIII.	Nine to twelve months.....	4.0	6.0	2.50	38-45

The number of feedings during twenty-four hours should vary from ten the third day, given at intervals of two hours, to five at one year, given at intervals of three and a half hours. Semthin's rule, "The greater the weight the greater the gastric capacity," is of service in deciding the quantity of food and also the percentages that should be given an average healthy infant. For infants having feeble digestion the percent-

ages and quantity should be reduced, and, if necessary, the milk may be peptonized for a short time.

The following convenient table given by Holt will save the trouble of calculating the exact quantity of each of the ingredients required for the formulae most used, and also the amounts needed for the preparation of twenty-four, thirty-two, forty, and forty-eight ounce respectively, of food:

Quantity of each ingredient required to prepare the following amounts of food.

No.	Formula.	Ingredients.	24 oz.	32 oz.	40 oz.	48 oz.
II.	Fat, 2.0 per cent. Sugar, 6.0 " " Proteids, 0.6 " "	Milk	1½ "	1¾ "	2¼ "	2¾ "
		Cream (skimmed, 16 per cent.)	2½ "	3¼ "	4¼ "	5¼ "
		Lime water	1 "	1½ "	2 "	2½ "
		Water	19 "	25¼ "	31½ "	37½ "
		Milk sugar, even table spoonfuls	3	4	5½	6½
IV.	Fat, 3.0 per cent. Sugar, 6.0 " " Proteids, 1.0 " "	Milk	2 "	2¾ "	3½ "	4 "
		Cream (skimmed, 16 per cent.)	4 "	5¼ "	6¾ "	8 "
		Lime water	1 "	1½ "	2 "	2½ "
		Water	17 "	22½ "	28 "	33½ "
		Milk sugar, even table spoonfuls	3	4	5½	6½
VII.	Fat, 4.0 per cent. Sugar, 7.0 " " Proteids, 2.0 " "	Milk	8 "	10½ "	13½ "	16 "
		Cream (skimmed, 16 per cent.)	4 "	5¼ "	6¾ "	8 "
		Lime water	1 "	1½ "	2 "	2½ "
		Water	11 "	14½ "	18 "	21½ "
		Milk sugar, even table spoonfuls	3	4	5½	6½

The directions written out for the nurse will be as follows: Dissolve the milk sugar in the boiling water, filtered through cotton, add the milk and cream and mix all in a pitcher; then add the lime water, and, preferably, divide in as many bottles as the number of feedings to be given in twenty-four hours.

If the milk is not to be sterilized, it should be rapidly cooled and placed in an ice-chest, where it is kept until required. Among poor people the lack of ice is the greatest obstacle, but that may be overcome either by preparing only enough food for one or two feedings at a time, or, in the country where springs are plentiful, the food may be put into a fruit jar, and the day's supply kept pure and sweet by submerging it in cold water.

Among the farmers in my own locality it is customary to place the cans containing night's milk in the water tanks to keep cool until morning. This milk and the cream which rises during the night are sometimes used to prepare food for the baby. Owing to the misgivings regarding the cleanliness of average milk from a large dairy, I have not recommended the method; but in some cases have contented myself by ordering the food sterilized. Those who do not favor sterilization under more favorable

conditions, would, I think, make an exception after visiting a separator, and seeing the amount of filth which it removes from ordinary milk.

Farmers using a "Cooley Creamer" or a hand separator, may use the milk and cream obtained by either method with very satisfactory results, provided scrupulous cleanliness is observed. As this plan involves very little trouble, it recommends itself to those to whom an unfamiliar method may at first seem complicated.

In regard to sterilization, Tresman has given in the Archives of Pediatrics a summary of the answers received to questions sent to the members of the American Pediatric Society as to whether milk used for infant-feeding should be heated for the purpose of killing the germs, and, if so, at what temperature and how long continued. From the replies received, he states that the predominating opinion expressed was that raw milk would be the best food, if it were possible to obtain it clean; some being in favor of its use during certain seasons and under favorable conditions. He believes that under the present dairy hygiene, some degree of sterilization should be used, and favors pasteurization at a temperature of about 155 degrees F. for thirty minutes, followed by rapid cooling. This tempera-



ture destroys the germs of diphtheria, typhoid fever, and tuberculosis, and does not give the milk a "cooked milk" taste, as chemical changes do not occur until a temperature of ten degrees higher is reached.

Some of the objections to sterilization, especially at a temperature above 167 degrees F., are that the children frequently become anemic and show a tendency to rachitis. The administration of orange juice and freshly expressed beef juice gives good results in these cases.

We may assume that a milk which is clean enough to need no sterilization is worth making an effort to obtain. In a paper by Leroy M. Yale, discussing "clean" or "certified" milk, the author says: "There is opportunity in every town to procure clean milk by the energy of a few or even one interested mother." After pointing out the common sources of contamination, he shows how they are guarded against in some dairies engaged in the production of "certified" milk. The cows are chosen with the greatest care to exclude disease, the tuberculosis test being used. The stables are cleaned many times a day, the cows carefully groomed, and the belly and bag cleaned before milking. The feeding is carefully managed, and pure water is plentifully supplied. The milk-pails and other utensils are sterilized before using and the utmost care is taken to prevent contamination from the hands or clothing of the milker. The milk is strained, aerated, cooled, put into sterilized bottles, and carefully closed. This really clean milk is profitably sold in some places at eight cents a quart.—Medical Council.

#### THE PROGRESS OF THE CRUSADE AGAINST CONSUMPTION.

It must strike the observer as curious, and not altogether encouraging, to note how little headway the "crusade" has so far made in ordinary matters of daily life. How many more people boil their milk now than did so a few months ago? Yet the very Commission which told us about the serious danger attaching to the use of milk told us almost in the same breath that boiling it even for an instant would entirely prevent the trans-

mission of infection by its means. Do we see any less spitting in streets or omnibuses than we did? How many times a week, a month, or even how many times at all has one seen a pocket spittoon used in a public place by any member of the immense army of consumptives who we know are wandering about in our midst? Do we see any signs of fashion issuing an edict against fluffy carpets and soft hangings? Do we see mistresses insisting on their housemaids using a damp cloth instead of a duster? Do we see any fewer knick-knacks in drawing rooms, or any more bedrooms with painted walls and linoleum floors? Do we see our places of public resort, our railway carriages, and especially our theatres, upholstered in washable material? Lastly, even in our hospitals and infirmaries, how often do we find the managers taking care that the meat supplied to the patients comes from non-tuberculous animals, and that the milk is derived from cows whose freedom from tubercle has been proved by the tuberculin test? Nay, we will go further, and ask in how many workhouse infirmaries,—the last resort of so many consumptives—is any effort made to separate these patients from those suffering from other classes of disease, and in how many asylums, whose inmates notoriously suffer largely from consumption, are measures taken to isolate those who are affected, and who, from their mental condition, cannot be taught to adopt proper measures to lessen the danger to which their fellow-inmates are exposed? Here and there a little is being done, but we doubt whether the "crusade" has yet to any large extent touched the heart of the people, or even of those who occupy responsible positions. On every hand the doctrine of infectivity is being accepted as "most interesting," and as showing clearly what somebody else should do. On every hand do we see signs of an increasing desire for some great thing being done preferably by "the Government" or "the authorities," but nowhere do we see any marked willingness to incorporate the doctrine of the infectivity of tuberculosis as a guiding principle in the doings of our daily life, and that is what is wanted if the "crusade" is to come to full fruition.—The Hospital.

### ACETYLENE GAS IN CANCER, GONORRHEA, AND ALLIED CONDITIONS.

By J. H. Gulnn, M. D., Arkansas City, Kans.

In the October number of the Medical Council I read an article on calcium carbide. I began some experiments by placing a small piece of calcium carbide against the abraded surface, packing with iodoform gauze, and depending upon the moisture from the tissue to liberate the gas. The method was unsatisfactory to a marked degree. The oxidation was too rapid, producing a deep and painful wound, while the ash left was often sand like and irritating.

I used a small piece in the cervix of a carcinomatous womb, intending to use some in the womb at the next treatment, but the burn was so deep and painful that I feared to use it in the womb, lest it burn a hole through the body of the uterus. I could see no advantage in the burn over the cautery or acids, the advantage being in the gas, so I generated the gas, caught it in a bag, and made the following experiments:

Case First.—Mrs. T., aged 54 years, cancer of the left ovary, womb and cervix, exuding a profuse and offensive discharge, with alarming hemorrhages about every three weeks. I had discharged the case as incurable and sent her home, she having been at the hospital at Kansas City and other places. (This case was unfavorable for surgical interference.) I had her daughter send for her, and I began treatment by dilating and slightly curetting the cervix and womb. I then slipped a round piece of rubber one-half inch in diameter upon a tapering tube, introduced the tube into the gas bag by long rubber tube, and turned the cut-off pressing the disc against the cervix to prevent the escape of the gas. I applied the treatment for twenty minutes. At the end of that time she complained of pain and faintness. I continued the treatment every other day for four weeks, except one week, when she flowed too freely.

I was astonished at the results. The discharge almost ceased after a few treatments, the tissues contracted and the womb and the cervix (so much as could be seen) became normal in appearance; and now ten

weeks since beginning, it looks well, and the woman feels well. She has no more chills or pain, her skin is much clearer, and she is in her own words "well," with the exception of a flow of blood occasionally for an hour or two. Her trouble dates from a tubal pregnancy of three months' duration twelve years ago.

I canvassed the medical brethren for dead beats and charity patients, and have up to this writing (January 20, 1899) treated three cases of cancer, two of the womb, one of the hand; eight cases of gonorrhoea in women, six in men; twelve cases of ulceration of the cervix, seven of endometritis, ten of leucorrhoeal discharges, with good results in all, no other treatment being used. To some the treatment was painful (afterwards), in others free bleeding followed for a short time; some claimed a toxic effect.

Absorption is very rapid. In determining this I used two cut-offs, one to keep the gas from escaping from the bag, the other on a short rubber attached to the tube. It is easily determined by forcing the gas into the womb, shutting off both stops, and using a metal, rubber or glass tube, and applying a match, when the gas will burn with a bright flame, which, of course, will depend upon the contractibility of the womb, to prove the rapidity of absorption. Inflate as directed and apply a match: if the womb is excited it will contract, and the gas will be forced out and burn. When empty, re-inflate and leave the cut-off closed, wait five minutes and apply the match, and it will not ignite.

For treatment of the cervix and vagina I use a hard rubber irrigator that has a soft rubber face, plug up the return pipe and press against the vagina and no gas escapes. I use it about the same length of time as in the womb.

For the male attach a soft rubber catheter, press back to near the prostate gland and force in the gas. If the gas escapes around the catheter place a disc of rubber around the catheter, the distance from the end you wish to insert it. A little paraffine or wax will make it gas proof. Hold the penis firmly and press it close to the meatus. In treating for endometritis, etc., occasionally the cervix will be lacerated, and

the rubber disc will not fit closely and the gas will escape. I sometimes use a cone-shaped tube one-half inch at the base and tapering to a point. The tube is three inches long, slightly curved. If that does not close it pack with gauze around the tube.

When generating oxidization is so rapid that considerable water is converted into steam and carried over, condensing into water again in the bag, and, if not drawn off, will be forced into the womb, causing terrible suffering and inflammation, as I found out by experience. If the bag is hung up and the cut-off loosened the water will flow out, when the gas burns at the tube without flickering or spurting the water is all out.

I have been making some experiments with the gas upon meats in various stages of decomposition, but at the present can only say that it arrests decomposition at once. I have some meats that have been in the gas for eight weeks, but have not removed them as yet from the jars.

For treating ulcers I use a cupping glass attached to the bag. Use cullodin varnish or bicycle cement around the rim to prevent the escape of gas. The smell or sound will warn you if gas is escaping. I throw the bag upon the floor and place my foot upon it to get the pressure.—Medical Council.

#### DAMPNESS OF DWELLINGS.

To estimate the dampness of a house the "Dietetic and Hygienic Gazette" in its last issue gives the following rule:—In the room in question a couple of pounds of fresh lime should be placed, after hermetically closing doors and windows. In twenty-four hours it should be weighed, and if the lime has absorbed more than ten grammes of water (that is more than one per cent.) the room should be considered damp and classed as unhealthy. The question of the dampness of dwellings is a frequent cause of dispute between landlord and tenant, naturally solved in the negative by the former. The question can be settled in the future by the test of the hydration of lime, which will give irrefutable proof of the validity of such complaint.

---



---

#### EDITORIAL.

---



---

The two Gallicians tried and convicted at the late Assizes held in this city by Mr Justice Killam, for the brutal murder of an old man and four little children, following so shortly after the murder and attempted murder by Paul Brown, affords unpleasant evidence that some of the foreigners coming amongst us are anything but desirable neighbors, particularly in sparsely settled districts, and before importing them wholesale it would be well to find out the standard of morality that prevails amongst them. Among the Gallicians, if report speaks true, it would be found of a very low order, but still they come, or rather are brought. The recent trial has an incident of interest in a forensic medical point of view. One of the strong grounds relied on to prove Brown's insanity was his desire to be hung rather than confined in an asylum. Yet one of these Gallician's, a young man about 23 years old, after the jury had returned a verdict of guilty, said in open court that he hoped the criminal court would not sentence him to torture or to prison for 20 years or for life, but send him to the gallows. There was no plea of insanity set up in this case, and yet on precisely similar grounds a commission, composed of two medical men engaged in lunacy practice, pronounced Brown insane, he having stated the same desire. It has eked out since the trial that while serving his sentence of three years in the penitentiary for a previous offence, that he took some poisonous liquid used in the shoe department of the prison where he was employed. Probably smarting under a real or fancied injury, with an ill balanced mind such as Brown has, the act would hardly justify its being ascribed to lunacy. If he really desired to put an end to his life, the means were ready to his hand in the various instruments used in the shoe shop with

which he could have accomplished his purpose without danger of interference. But Brown did not or does not want to die, he wanted to be clothed, housed and fed for the rest of his days, and his experience of prison life in Canada satisfied him that serving a life sentence would be the easiest way of passing the remainder of his earthly career, hence his criminal acts and subsequent game of bluff. The Minister of Justice lately quoted Brown's case in addressing a meeting, but from his remarks it was evident that the report of the commission studiously avoided any proof of Brown's sanity. It would be interesting to know if the Dominion Government caused any inquiry to be made as to the truth of the story given in the Telegram concerning Brown's antecedents. It appears that his fellow prisoners in the penitentiary said he was insane, but it is well known that a strong fellow-feeling exists among criminals, and if they can do a good turn for one of their fraternity, without injuring themselves they will readily do so, therefore, their mere statement cannot carry much weight, and it is but natural to suppose that those who knew him from boyhood would give him a helping hand, when in the clutches of the law, and that of a foreign power under such circumstances the truth would not be easily arrived at.

---

#### MISCELLANEOUS ARTICLES.

---

##### DANGERS IN LEAN MEAT.

Practical experience, as well as theoretic consideration, lead to the conclusion that a lean meat diet continued for any length of time is incompatible with health. Leading medical teachers in France are now sounding the note of warning against the use of an exclusive meat diet in diabetes, a disease of which lean meat was formerly supposed to be almost a panacea. A close study of the history of these cases has shown that an exclusive meat diet is not infrequently a cause

of death, through the accumulation of so great a quantity of ptomaines within the body that the kidneys are unable to cope with them. Professor Boofelt says:—"It is the duty of the physician who places his patient upon a lean meat diet to inform him of the fact that he is living close to the border line, and that his situation is like that of a man walking along the brink of a precipice; that he must on no account submit himself to the influence of an anæsthetic without first undergoing a few days' preparation, including an entire change of diet; and the truly wise physician will further instruct his patient that it cannot be safely adopted as a continuous dietary without the use of some substitutionary."

---

##### DARK HOUSES.

People who keep their houses dark for fear of the sunlight spoiling their carpets and furniture have no idea of the disease-destroying influence of sunlight and air. Recent experiments made in the Pasteur Institute have shown that bacilli exposed to the sun and air were destroyed in two hours, while those exposed to the sun, the air being excluded, were alive after fifty hours of exposure. Dr. Palermo, of Naples, made an interesting experiment with cholera bacilli. While he found those protected from the sun killed guinea pigs in eighteen hours, as usual, those exposed to the sun, although not killed, were rendered entirely harmless. As to the influence of sun and air on bacilli, it was ascertained that the oxygen of the air had a marked effect in assisting the sun's rays, and that the bacteria suffered more from the sun's rays if the supply of oxygen was increased than if it was diminished.

---

##### THE CONTAGIOUSNESS OF TUBERCULOSIS.

Moussu, of Alfort, who has made a special study of the conditions under which tuberculosis is transmitted by contagion, reported his results to the Congress on Tuberculosis held in Paris. He made an experiment which consisted in exposing to direct tuberculous contagion, several animals of different species by placing them in the same

byre with tuberculous cattle. Care was taken to ascertain that the animals—among which were seven bovines, seventeen goats, two sheep, and one pig—were all healthy before exposure. The seven bovines reacted to tuberculin before they showed any clinical sign of tuberculosis. All save one were killed, and in all there were found tuberculous lesions generally limited to the mediastinal or mesenteric glands. Of the seventeen goats, some reacted distinctly on being subjected to the tuberculin test; the others were shown by post-mortem examination to be tuberculous. The two sheep reacted to tuberculin. In one which was killed in no long time afterwards there was no tuberculous lesion visible to the naked eye. In the other, which was killed after a longer interval, distinct tuberculous lesions were found. The pig had been bitten on the thigh, and had been infected with tuberculosis at the site of the wound by bacilli contained in the litter of the byre. The length of stay of all the animals in the infected byre varied from five months to one or two years. The author adds that dogs and fowls exposed to contagion in the same manner always remained free from tuberculosis.—The Post-Graduate.

#### FASTING FOR ACUTE INFECTIONS.

Prof. De Dominicis has been forced to the conclusion that the mysterious cause which transforms inoffensive bacterie passing harmlessly through the organism into virulent pathogenic germs is the failure of the digestive apparatus to dispose normally of the food. Even the simplest, scantiest diet will produce putrid decomposition if not digested, and the alimentary canal become a toxine factory, and a fine culture-medium for the germs to acquire virulence in and entail serious complication. His extensive experimentation has established the fact that animals kept fasting recovered far more rapidly, and without complications from acute infections and severe traumatisms, than others in the same conditions, fed as usual or even much less than usual. He forbids all food to his patients in acute infections, especially in pneumonia, if there is

any reason to suppose that the digestion will not proceed normally. Observations of 140 cases of pneumonia have confirmed the wisdom of this course, which has won for him the name of the starving doctor. In every case it was noted that during the prolonged fast, sometimes a week in length, the patient partially regained the strength he seemed to have entirely lost before.

#### STERILIZED MILK MAY BE UNSAFE.

Prof. Marfan combats the idea that is so widespread among the laity that sterilized milk is safe. He has had to report an outbreak of gastro-enteritis in children. These children were all fed from milk that had been carefully sterilized. It appeared that the milk was sterilized 16 hours after milking. While the sterilization was able to kill the bacilli, they had had time to develop toxic substances, which were the cause of the outbreak. Heat kills bacteria but it does not destroy the poisons generated by them. If milk is sterilized after the poisons have been generated it is as dangerous as unsterilized milk.

#### A HOT SAND BAG.

Dr. Belsharp says: Many persons are acquainted with the virtues of the hot water bag, but a sand bag is still better. Get some clean, fine sand, dry it thoroughly in a kettle on the stove; make a bag about eight inches square of flannel, fill it with the dry sand, sew the opening carefully together, and cover the bag with cotton or linen cloth. This will prevent the sand from sifting out, and also enable you to heat the bag quickly by placing it in the oven or on top of the stove. After once using this you will never again attempt to warm the feet or hands of a sick person with a bottle or a brick. The sand holds the heat for a long time, and the bag can be tucked up to the back without hurting the invalid.



# Manitoba Medical College

WINNIPEG

IN AFFILIATION WITH THE UNIVERSITY OF MANITOBA.

Established 1883.

J. WILFRED GOOD, M.D., Dean.

Incorporated 1884.

W. A. B. HUTTON, M. D., Registrar.

Two First Year Scholarships of the value of \$80 and \$50, are open for competition at the close of each first session.

Two Second Year Scholarships, value \$80 and \$50, are offered for competition at the end of the 2nd year.

Two Third Year Scholarships, value \$80 and \$50 are offered for competition at the end of the 3rd year.

The University Silver Medal will be awarded to the student obtaining highest marks in M. D. Examination, and a University Bronze Medal to the student taking second place.

The total collegiate fees amount to \$35 including registration for students taking the four year course, payable in four annual instalments of \$7.50 each. Graduates in Arts taking their work in three years will be required to pay \$270 or \$90 each year.

All college fees must be paid in advance to the Registrar on or before December 15th.

Hospital Tickets for the Winnipeg General Hospital are \$10 for each session.

Maternity tickets \$50.

Tickets must be paid at commencement of the session.

The University fees are payable 20 days before each examination, to the Registrar, Mr. Pitblado.

Each yearly examination, 1. M. D. Degree, 10; C. M. Degree, 15. Ad Eundem, \$5.

Good board may be had in convenient parts of the city at 4 per week. Board and room from 4 to \$8.

The Board of Directors of the Winnipeg General and St. Boniface Hospitals appoint four Manitoba University graduates as Resident House Physicians and Surgeons.

Clinical Clerks, Dressers and Post Mortem Clerks, are appointed by the attending Physicians and Surgeons.

For further particulars address

W. A. B. HUTTON, M. D.

155 Mayfair Avenue, Fort Rouge, Registrar.

## Professors and Lecturers.

- J. Wilfred Good, M. B., Toronto; L. R. C. P., Edinburgh; member of the medical staff of the Winnipeg General Hospital; Ophthalmic and Aural surgeon to St. Boniface Hospital.  
Professor of Clinical Surgery, and Lecturer on Ophthalmology and Otolaryngology.
- J. R. Jones, M. B., Toronto; L. R. C. P., London; member of the medical staff of the Winnipeg Gen. Hosp.  
Professor of Principles and Practice of medicine, and Clinical medicine.
- R. Josephine Blanchard, M. B., C. M., Edin. University; member of the medical staff, Winnipeg General Hospital.  
Professor of Surgery and Clinical Surgery.
- H. H. Chown, B. A., M. D., Queen's University; L. R. C. P., London. Member of the medical staff of the Winnipeg General Hospital.  
Professor of Clinical Surgery.
- Encas S. Macdougall, B. A., M. D., C. M., McGill; member of the medical staff, Winnipeg General Hospital.  
Professor of Surgical Anatomy.
- R. M. Simpson, M. D., C. M., University Manitoba; L. R. C. P., Edin; L. R. C.S. Edin; L. F. P. & S., Glasgow; F. R. G. S., London; member of the medical staff, Winnipeg General Hospital.  
Professor of Principles and Practice of Medicine.
- W. J. Neilson, M. D., C. M., member of the medical staff, Winnipeg General Hospital.  
Professor of Anatomy.
- E. S. Popham, M. A., Victoria; M. D., C. M., Univ. Man. med. staff, Winnipeg General Hospital.  
Professor of Obstetrics.
- E. W. Montgomery, B. A., M. D., C. M. Univ. Man., member med. staff, Winnipeg General Hospital.  
Professor of Physiology.
- J. S. Gray, M. D., C. M., McGill; member of the medical staff, Winnipeg General Hospital.  
Professor of diseases of women and children.
- W. A. B. Hutton, M. D., C. M., University Manitoba. Lecturer Pharmaceutical Association.  
Professor of Chemistry, General and Practical.
- J. O. Todd, M. D., C. M., University of Manitoba.  
Professor of Surgery.  
Demonstrator of Anatomy
- Gordon Bell, B. A., Toronto Univ.; M. D., C. M., Univ. Manitoba.  
Professor of Bacteriology, Pathology and Histology.
- W. S. England, M. D., C. M., McGill; member of the medical staff, Winnipeg General Hospital.  
Demonstrator of Anatomy.
- J. A. McArthur, M. D., C. M., McGill. Professor of Medical Jurisprudence and Toxicology.
- James Patterson, M. D., C. M., McGill; member of the medical staff, Winnipeg General Hospital.  
Emeritus Professor of Hygiene.
- A. Holmes Simpson, M. D., C. M., University of Manitoba.  
Professor of materia medica and Therapeutics
- J. H. C'Donnell, M. B., Victoria; C. M., Trinity; Consulting Physician to the Winnipeg General Hospital  
Professor of Sanitary Science
- Alex. Campbell, Esq., member Ont. College Pharmacy. Licentiate Man. Phar. Association  
Lecturer on Pharmacy.

# SANMETTO FOR GENITO-URINARY DISEASES.

A Scientific Blending of True Santal and Saw Palmetto in a Pleasant Aromatic Vehicle.

A Vitalizing Tonic to the Reproductive System.

SPECIALLY VALUABLE IN  
PROSTATIC TROUBLES OF OLD MEN—IRRITABLE BLADDER—  
CYSTITIS—URETHRITIS—PRE-SENILITY.

DOSE:—One Teaspoonful Four Times a Day.

W. D. CHEM. CO., NEW YORK.

# Ammonol

## In Malarial Fevers

behaves as a stimulant as well as an **Antipyretic**  
**and Analgesic** thus differing from other Coal-tar

products. It has been used in the relief of rheumatism and neuralgic pains, and in the treatment of the sequelae of alcoholic excess. AMMONOL is also prepared in the form of salicylate, bromide, and lithiate. The presence of Ammonia, in a more or less free state, gives it additional properties as an expectorant, diuretic, and corrective of hyperacidity.—*London Lancet.*

# The Stimulant

Ammonol is one of the derivatives of Coal-tar, and differs from the numerous similar products in that it contains Ammonia in active form. As a result of this, AMMONOL possesses marked stimulating and expectorant properties. The well-known cardiac depression induced by other Antipyretics has frequently prohibited their use in otherwise suitable cases. The introduction of a similar drug, possessed of stimulating properties, is an event of much importance. AMMONOL possesses marked anti-neuralgic properties, and it is claimed to be especially useful in cases of dysmenorrhoea.—*The Medical Magazine, London.*

Ammonol may be  
obtained from all  
Leading Druggists

**The Ammonol Chemical Co.**  
NEW YORK U.S.A.

Send for Ammonol  
Excerpta a 48 page  
pamphlet.

We Find More Physicians Pleased

WITH

SMITH'S

Silver Truss

than any other Truss we  
have handled.

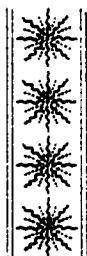


JOHN F. HOWARD & CO.,

Chemists and Druggists,

WINNIPEG, MAN.

## Nurses' Directory



Our Nurses' Directory has been found to be of great service, not only to Medical Men in the City of Winnipeg, but all over the Province. We have the names of over 50 Trained Nurses on our register. Telegraph to us when you want a Nurse.

JOHN F. HOWARD & CO.,

Chemists and Druggists,

*Opposite Post Office.*

WINNIPEG.



# If You Are Weak Or Ailing

Perhaps a nourishing stimulant such as PORTER or BITTER ALE, might prove beneficial. We know of hundreds of cases where great good has resulted from their use. A well brewed Porter is appetizing and strengthening. It is a great blood maker, and builds up the system. DREWRY'S ALE, PORTER and LAGER are recommended, in preference to the imported, by physicians generally. Purity, Age, Strength.

"Golden Key" Brand Aerated Waters are the Best.

E. L. DREWRY, Manufacturer, - - WINNIPEG.

## Wyeth's Liquid

### Malt Extract

Contains all the nutritive virtues of the best malt liquors, while it is free from the stimulating effects which invariably follow their administration. The consensus of opinion amongst medical men is that it is the best Malt Extract on the market.

Dr. J. B. McConnell,  
Asso. Prof. of Medicine,  
Bishop's College,  
Montreal.  
Under date Oct 6th, 1896, says:  
"I have for a number of  
years freely prescribed

WYETH'S  
LIQUID MALT EXTRACT  
and it always gives the re-  
sults expected and desired."

5,000,000  
BOTTLES  
CONSUMED  
.. IN ..  
ONE YEAR

THE DEMAND  
INCREASING DAILY.

Dr. A. R. Gordon, of Toron-  
to, in a letter says:  
"I write you regarding your  
LIQUID MALT EXTRACT  
and congratulate you upon  
its merits. I may say that  
during the past year I have  
ordered in the neighborhood  
of 30 doz of same, besides my  
prescriptions. Have been  
highly satisfied with its ef-  
fects."

It is highly recommended for nursing mothers during lactation, and convalescing patients. Promotes circulation in those who suffer from chills. It is a strength-giver to the weak. Produces sleep to those suffering from insomnia, and is one of the greatest digestive agents. Price to physicians, \$3 50 per doz bottles. For sale by all druggists or

## Davis & Lawrence Co., Ltd.

DOMINION AGENTS, MONTREAL

Printed and Published monthly by Frank Morrison at No. 210 Graham Ave., Winnipeg.  
Dr. J. P. Pennesfather, Editor.