

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. 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 filming, are checked below.

L'Institut a microfilmé 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 filmage sont indiqués ci-dessous.

Coloured covers/
Couverture de couleur

Coloured pages/
Pages de couleur

Covers damaged/
Couverture endommagée

Pages damaged/
Pages endommagées

Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée

Pages restored and/or laminated/
Pages restaurées et/ou pelliculées

Cover title missing/
Le titre de couverture manque

Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

Coloured maps/
Cartes géographiques en couleur

Pages detached/
Pages détachées

Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)

Showthrough/
Transparence

Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur

Quality of print varies/
Qualité inégale de l'impression

Bound with other material/
Relié avec d'autres documents

Continuous pagination/
Pagination continue

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

Includes index(es)/
Comprend un (des) index

Title on header taken from:/
Le titre de l'en-tête provient:

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
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 filmées.

Title page of issue/
Page de titre de la livraison

Caption of issue/
Titre de départ de la livraison

Masthead/
Générique (périodiques) de la livraison

Additional comments:/
Commentaires supplémentaires:

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									

ISSUED TWICE A MONTH (1ST AND 15TH) **\$1.00 A YEAR,**
5 Cents a Copy.
Can you afford to do without it in your family?

CANADA HEALTH JOURNAL

A Semi-Monthly Review and Record of
SANITARY PROGRESS

— EDITED BY —

EDWARD PLAYTER, M.D.

For Contents see next page.

Single Subscription, \$1.00 a year; three copies, \$2.65, in advance; six copies, \$5.00; ten copies, \$7.50.

Booksellers, and in places where there is no bookstore, Secretaries of Boards of Health, Teachers and Post-masters are authorized to act as agents, receive subscriptions, and retain all above the 75 cts. per copy, for the present, remitting this amount.

Address "CANADA HEALTH JOURNAL," Ottawa, Can.

VOL. XIII.

DECEMBER 15TH, 1891.

No. 12.

A TONIC.

HORSFORD'S ACID PHOSPHATE,

Prepared according to the directions of Prof. E. N. HORSFORD.

This preparation is recommended by Physicians as a most excellent and agreeable tonic and appetizer. It nourishes and invigorates the tired brain and body, imparts renewed energy and vitality, and enlivens the functions.

DR. EPHRAIM BATEMAN, Cedarville, N. J., says:

"I have used it for several years, not only in my practice, but in my own individual case, and consider it under all circumstances one of the best nerve tonics that we possess. For mental exhaustion or overwork it gives renewed strength and vigor to the entire system."

Descriptive pamphlet sent free on application to

Rumford Chemical Works, Providence, R. I.

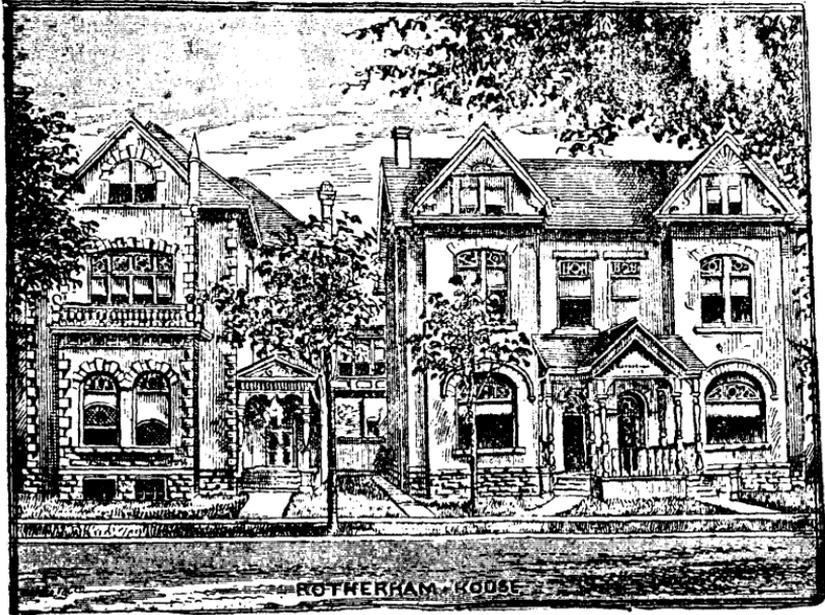
BEWARE OF SUBSTITUTES AND IMITATIONS.

CAUTION:—Be sure the word "HORSFORD'S" is printed on the label. All others are spurious. Never sold in bulk.

CONTENTS.

Diphtheria :—Its History and Prevention	204
Pure Air and Colds	205
The Influenza—Grip—Its Characteristics, Prevention, &c	206
The Great Rest Remedy or Preventive	207
How to Avoid "Taking" Infectious, or Disease Germs	208
How the Public Milk Supply is Managed in Copenhagen	210
On the Winter Work of Health Officers	212
Miscellaneous Notes and Comments	213
Pelee Island Wines	216
Special Announcement	216
Notes on Medical Progress	217
Notes on Current Literature	218
General Notes	218

ROTHERHAM HOUSE,



54, 56 and 58 Isabella St., Toronto.

Dr. Holford Walker's Private Hospital,

For the treatment of Surgical and Nervous Diseases of Women.

DR. HOLFORD WALKER desires to announce to the medical profession that, having found it necessary to procure more room, he has purchased the adjoining house; the three, united, making the most complete private hospital on the continent. Situated as it is on the height of land, with sand subsoil, it is in the most healthy locality in the city; and is surrounded in all directions by street car service, which connect with the various railway stations.

In Surgical Diseases of Women, electricity, after Apostoli's method, is used in all suitable cases before resorting to surgical interference. In the treatment of neurasthenic and hysterical cases, only thoroughly trained masseuses are employed. Most satisfactory results have been obtained in numerous cases of subacute and chronic rheumatism, even after contractions have existed for months. Ladies addicted to the use of Alcohol, Morphine, Chloral, or the Bromides, are more quickly cured by the treatment adopted than by any other in vogue at the present time.

For particulars as to Terms, etc., Address

DR. HOLFORD WALKER, - Isabella St., TORONTO.

Canada Health Journal.

A MONTHLY RECORD OF SANITARY PROGRESS.

VOL. XIII.

DECEMBER 15TH, 1891.

No. 12

POPULAR MEDICAL KNOWLEDGE, a universal knowledge of the value and means of preventive medicine as now rapidly developing, will alone, while nothing else will,

“Earn salvation for the sons of men.”

If every man and woman were now in possession of a full knowledge of the science of preventive medicine (the true medicine of the near future) does any one doubt that it would be a most valuable thing, a thing of inestimable value to the human race? Surely the more of such knowledge everybody possesses the better for everybody. A little knowledge is a “dangerous thing” only to the imprudent, who do not know how to use it. Leading medical journals cry out that the great want of the day is “the education of the public in the rules of health.” It is true, medical men themselves suffer from disease and die prematurely as well as do other people. But nine out of ten medical men will readily admit that they do not put their knowledge into practice in their own individual cases. Besides, hardly any of the medical schools yet teach even the value of preventive medicine; the younger physicians learn it after years of practice,—learn it from costly experience and from the sayings, in their medical journals, of a Jenner or a Wilks or an Abbott.

SIR WILLIAM JENNER says, let us note that, “To prevent disease is the most important aim of the science and art of medicine.” Dr. Samuel Wilks, F.R.S., &c., at Guy’s Hospital has said, “The idea of cure is low born and commonplace, and lies at the bottom of all quack systems.” Dr. Clifford Allbutt, M.A., F.R.S., &c., at a recent meeting of a medical society (Lancet, Nov. 14), after dwelling at much length on the value, both to the profession and the public, of preventive *versus* curative medicine, said “He would not be too Utopian, would not fix his eyes on too remote a prospect, but would soberly anticipate the time—not, perhaps, very far before us—when (saying nothing of the stamping out of epidemics, a comparatively easy matter) it would be a rare and unreasonable thing for a man of average constitutional value to drift into granular kidney disease, into cardio-arterial degeneration, into insanity, into chronic gout or gravel, into diabetes, into phthisis, or into any other twisted or defective state of function, without the means of having his morbid tendencies explained in their initial stages and, as far as practicable, counteracted. This,” he said, “is the future of medicine, and this is preventive medicine.”

AND SO, as Dr. Rockwell (in N. Y. Medical Journal) says, “Every sensible and observing physician, the longer he lives, must become more and more convinced that the cause and cure of the majority of the ailments that afflict humanity depend very much upon food and drink and habits of exercise. No saying is more trite than that men and women take too much medicine. They take many times too much, and too often the diseases and symptoms of disease for which relief is sought by this indiscriminate dosing are stimulated into increased activity.” But as yet, for a medical practitioner to dismiss a patient (with few exceptions) with good counsel and instruction, and without a bottle of medicine or a prescription for one, would be as much as his professional life were worth. But, as Dr. A’butt puts it, when the public has once grasped the great truth that preventive medicine must occupy the ground hitherto given up to mere sorcery or the occasional patching of curative medicine, and has become convinced that

medicine is an art of continuous vigilance, not of casual repairs, then a new relation will spring up between physician and patient which will be more responsible and more honorable. The run after "cures" will be recognized as a belated effort or a naked absurdity; and the restoration or preservation of health will be seen to depend, not upon particular prescriptions or fashionable doctors, but upon a system of treatment carried out patiently and loyally during, sometimes, long periods and in minutest detail.

THE EDUCATION of the people in the simple requirements of health, or in the ways of preventing disease, and to cause them to look up to the educated physician for *preventive practice* rather than *drugs*, would not be a very difficult or costly thing to do. We need a better, simpler system of education for the coming generations, but until "wisdom prevails" in this behalf, a great deal could be done in the direction and course indicated for our present suffering population, that would yield vastly better results than now commonly follow the efforts of health boards in the way of attempts at coercion, as has been proved in England. True, if all men knew the value of absolute cleanliness, all would not practice this divine virtue; but the majority would, when learning the value, the actual money profit, of it. In England incalculable good has been done by the several sanitary organizations. Millions of popular pamphlets and leaflets on health subjects have there been distributed amongst the people. In great London there is a department for loaning cleansing materials to the poor—baths, pails, tubs, brooms, brushes, and the like, and an interesting fact is noted in a report by the committee that a pail or bath tub has never been lost although many hundreds have been loaned at a farthing a set, and it is stated that the stumps of brooms carefully returned deserved a photograph, they told such an eloquent tale.

IN CANADA there is not a large wealthy class with leisure which can devote time and money to this philanthropic life-saving work of educating the masses in the rules of hygiene. But as we pointed out last month, not less than THIRTY THOUSAND preventible deaths take place in the Dominion every year, which it should surely be made somebody's duty to prevent, or to make effort to prevent. We have the advantage of England's experience in demonstrating the value of such educational work. If we have not the moneyed class with leisure to thus aid in the life-saving process, we have an intelligent people who would not oppose but would rather commend any government measure or movement in such behalf. It is not a provincial question; it is a Canadian question. And as we have said, surely it would manifest a greater wisdom to first: make efforts to save the lives to our own Canadian people than to bring in people from foreign countries. And although we have nothing to say against a discriminating and judicious "Vigorous Immigration Policy," the country needs, at the same time, or first, a Vigorous Life Saving Policy.

WHAT COURSE, it may be asked, could the Government best take in order to promote the public health, as indicated? We may again, as we often have done before in this JOURNAL, point out, but only very briefly, now, what those most competent to judge think to be most desirable in this way. First, as a basis for all public health proceedings, Canada needs a system of health statistics,—of births, marriages, deaths, with provision for obtaining at least monthly, and at any time during the month, from all parts of the Dominion, from say not less than 200 points, and from foreign parts and other places as far as possible, the state of the public health, especially as relating to infectious, contagious or epidemic disease, not *waiting* for the mortality returns—for death to totally destroy; and second, an official Report or Bulletin, issued at least monthly, and distributed freely to all interested, containing a synopsis of the information gathered, and besides this, many think, containing also a certain amount of practical information, valuable to the public, relating to sanitary progress in all countries. Such work as this carried on properly would constitute the best possible method of awakening general interest in sanitation, and a competitive desire in every locality in the Dominion to show a "clean Bill of Health." No man of intelligence, having given this subject sufficient consideration, can

believe such work can be best, or nearly as well, and without a great deal more expense, done by the separate provinces. The legislation and work of the provinces would not be in any way interfered with.

IN THE UNITED STATES a similar organization has been long urged upon the Government, and Senator Sherman, it appears, has now introduced a bill into the Senate to establish a "Department of Public Health," under the charge of a medical officer appointed from civil life by the President. This department is to obtain from consular officers at foreign ports all information available in regard to the sanitary condition of such ports and places, and also all information accessible for state and municipal authorities of the sanitary condition of places within the United States, all information gathered to be embodied in the form of a bulletin and transmitted *weekly* to the Marine Hospital Service, Collectors of Customs and to state and municipal health officers, and, as far as it is available, procure tabulated statistics relating to marriages, births, deaths, the existence of epidemic diseases, and all information relating to climatic and other conditions in the United States affecting public health. The department would co-operate with state boards of health, the Signal Service, the Medical Department of the Army, and other branches of the Government. All rules governing the service are to be framed by the medical officer in charge, and are to serve for the instruction of consular officers abroad and for masters of sailing vessels bound for the United States from foreign ports.

A FEW CROAKERS with less wisdom and discretion than desire to grumble at the innovations of progress may ask, or in effect in the past have asked, if a man is to watch the state of his health or his various bodily functions, by day and night, by month and year, and to watch external circumstances as they affect his body, his heart, stomach, liver, brain, and mind, shall we not produce an introspective, hypochondriacal race, whose attention will be thus withdrawn from higher duties and energies, and who will haunt the physician rather than engage in useful work? Surely not! What can be more searching than the laws of our social organization, or at the present time what more comprehensive than the system of it? Yet, by the force of habit and the education of social pressure, a man manages to keep the laws of country and conscience and the regulations of work and amusement without the continual presence of a solicitor or a priest, or of a policeman or inspector, and that without the increase of morbid conscientiousness or intellectual timidity. Again no. It is "a new point of view and new habits rather than a selfish anxiety" which it is desirable to encourage.

"AS THE THIEF is ashamed when he is found," usually, so may, and probably will, intelligent people learn to be ashamed to be sick or diseased. We often think it to be a sort of "reflection or reproach on a physician when he or any of his family are not at least fairly healthy, and have a feeling akin to shame when any one of our own household chances to be sick, with a strong propensity to conceal the fact, as far as reasonably possible. It has been a question as to how it was that the late lamented Prince Consort, "Albert the Good," was said to have died of "Gastric fever," when it was simply common typhoid fever. Was it that to have a "filth disease" was

. . . . "Ill becoming any common man,
Much more a Knight, a Captain and a leader"?

We do not remember who first said, only two or three years ago, that, for every death from typhoid fever somebody ought to be hung." Doubtless in connection with most deaths from this cause in recent years, with our present knowledge, there has been criminal carelessness somewhere. A quarter of a century ago it was different; for comparatively little was then known of the aetiology of typhoid, and nothing of the habits of its characteristic bacillus. In later years the two princes of the royal family have had to bear the responsibility of correct nomenclature. Yet in the last case an effort has been made to throw the blame on the irresponsible, innocent oyster.

DIPHTHERIA:—ITS HISTORY AND PREVENTION.

R. Thorne Thorne, M. B., F. R. C. P. Londr., F. F. S., Assistant Medical Officer to the Local Government Board, etc., London, has recently given most valuable contributions to the knowledge on diphtheria, in the "Milroy Lectures" for 1891.

From the facts cited in these lectures (*N. Y. Med. Jour.*) we learn that during the past twenty years there has been a progressive increase in the rate of mortality from diphtheria in England and Wales, and that this increase is especially marked in urban populations, while formerly it had been most prevalent in rural districts, as we have before pointed out. This is particularly noticeable because this increase is contemporary with a constant improvement in municipal water supply, sewerage, and drainage in urban districts, and with a decrease in the death rates from all other causes, from the group of zymotic diseases, and from enteric fever. The geological features of a locality seem to play no part in the causation of the disease, but the dampness of the place, as indicated by the height of the ground water, seems to foster and to enhance the mortality. Season has a decided influence, both upon the manifestation of diphtheria and the mortality. Beginning in September, the highest point is reached during October and November, and there is a gradual decrease during December and January, the smallest mortality occurring during May, June and July. The greatest number of cases occurs between the ages of three and twelve years, and there is a slightly greater mortality among females than among males. The author attaches great weight to a prevalence of ill-defined throat illness before, during, and after an increase in the number of cases of diphtheria, and believes that in many of these cases there is a "progressive development of the property of infectiveness, culminating in a definite specific type which is indistinguishable from true diphtheria." Much evidence is adduced to show that diphtheria has often been conveyed through the medium of milk; and the fact that cows, as well as cats, can be inoculated with the bacillus diphtherie gives good ground for believing that the infectivity of milk is due to some disease of the cow. Accordingly, the author urges that raw milk should never be used, but that it should always be raised to a temperature of 155° F. and kept at that heat for at least six minutes. The author believes that teachers often receive convalescents into school at too early a date, and do not exclude children of the same family presenting incipient symptoms of illness, because the financial condition of the school or the teacher's salary is dependent upon the average attendance.

At the last meeting of the American Medical Association, Dr. J. Lewis Smith, New York's highest authority on diseases of children, read a paper before the section on these diseases, on the prophylaxis and treatment of diphtheria (*N. Y. Med. Rec.*). He said: Physicians undoubtedly conveyed the disease. They should always examine the fauces by standing behind or at the side of the patient, so that no ejected mucus may come upon them. After each visit they should wash thoroughly, in a sublimate solution, hands, face, and beard. Walking cases without fever, anorexia, or malaise diffused the disease. Daily inspection of the fauces of school children had been proposed. Convalescents should not mingle with healthy children for four weeks. He admitted the full claim of the Klebs-Loeffler bacillus to be the cause of the disease. It was a surface microbe, never penetrating the interior of the body, but attacking only mucous surfaces or cutaneous abrasions. It produces a plomaine containing carbon, hydrogen, azote, sulphur, and oxygen, which by absorption through both blood- and lymph-channels causes the nephritic-granulo-fatty degeneration of heart muscle and paralysis. The treatment should embrace hygiene, diet and alcohol. Locally, NORMAL EPITHELIUM (healthy mucous covering) was a barrier to the germ's entrance, and hence remedies should be such as not to destroy the epithelial covering. Denuded or diseased surfaces were favorable starting-points for the disease.

In a recent editorial in the *Therapeutic Gazette* on this subject it is stated that: The contagion is exceedingly prone to cling to clothing, and the disease has in many instances been traced to this source. Fortunately, the contagion is of a very heavy nature, and is but little diffusible. Physicians attending cases should scrupulously disinfect their persons and clothing.

All that has been worn by the patient should be subjected to prolonged boiling, or to a dry heat of 240° F., before being again used.

Dr. W. H. Welsh commends the prophylactic value in persons liable to exposure, of special cleanliness of the teeth and mouth, and of the frequent use of antiseptic mouth washes, nasal douches, and gargles. That high authority, Læffler, recommends for this purpose aromatic waters, weak sublimate solutions, chlorine-water, and thymol.

Special attention to all apparently simple cases of sore throat is urged by all good authorities; and the importance of keeping the mucous membrane covering it in a sound healthy state.

PURE AIR AND COLDS.

BY THE REV. J. W. QUINBY, IN THE POPULAR SCIENCE MONTHLY FOR
DECEMBER, 1891.

A FEW years ago I read an article in the Popular Science Monthly which seemed to prove the value of pure air as a preventive of "colds." The theory suggested was that colds may be caused by the loss of a certain equilibrium between the oxygen in the lungs and the carbon in the blood. It is true that this may follow overeating, and so overcharging the blood with food elements; but more frequently it was thought, the lack of pure air.

By acting upon this theory almost incredible results were said to have been reached. The writer of the article alluded to claimed that he had easily brought himself into a condition in which it seemed impossible to take cold. He could sit in thin clothing in winter at an open window. The ordinary causes of colds, such as wet feet, overheating, and the like, seemed powerless to produce their usual results.

With these statements in mind, I remember some curious facts of my own experience in the army in 1862 and 1863. I was not strong, and indeed was hardly fit to be in the army at all. And when I found myself exposed all day long to a steady rain, and at night to the outdoor air, with no fire, no change of clothing, no shelter but a canvas covering open at both ends, through which the rain dripped constantly, it seemed certain that the "death o' cold" so often predicted must surely follow. Why it did not follow was more of a mystery then, than it is now. For I was in a place where the art of man no longer excluded one of the principles of health. I breathed pure air because I could not help it. During a service of fifteen months, with severe exposures, but fresh air constantly, the same immunity from colds prevailed. I remembered, too, that when I came home from the army I had comfortable rooms to eat, breathe, and sleep in, but very soon I had colds, sore throats, and related troubles.

Finally, after nearly twenty years of suffering according to the ordinary lot of man, I resolved to try the pure-air cure, and from that time to this the windows of my room have been open almost constantly day and night. The result was immediate and striking, and for the last seven years I have not had one serious cold. My sore throats are wholly a thing of the past, and certain other physical derangements not usually associated with colds have disappeared.

At this very moment in the house where I live there are twelve persons, every one of whom, except myself and one other, is suffering from the effects of a cold. I may state that nearly all my father's large family died of consumption.

It should be borne in mind that the difference between the air of an ordinary room in which people live and that of the air outdoors is far greater than is generally supposed. Think of the emanations that constantly proceed from carpets, walls, draperies, &c. People say: "Oh, yes, we believe in ventilation. We open the windows in the morning, and at night we open the doors of our sleeping-rooms." My dear friends, you know no more of really pure air than the blind mole down in the ground knows of sunlight.

THE INFLUENZA GRIP: ITS CHARACTERISTICS, PREVENTION, &c.

The Influenza is a subject of much interest the world over at the present time. Some authorities believe that its germs or rather spores are "in the air," and flit with the wind from place to place as apparently do those of the potato blight, and, although contagious, that contagion exercises but little influence in its spread. The best and latest authorities--the weight of authority, however, support the view that the disease is spread by contagion in the same way that is measles and scarlet fever. In a work by Dr. Sisley, M.R.C.P., Lond., &c., just published (by Longmans, Green & Co., London and New York), the author furnishes a great deal of data which makes it evident that it spreads from the sick to the sound by contagion, that isolated cases precede an epidemic, that epidemics spread along the lines of human intercourse.--in fact, he finds that in every case where the course of the disease has been studied with care it is apparent that it spreads in the same way as any other contagious disease.

In *The Lancet* (London, E.) of Dec. 5, inst., is an article by Dr. J. K. Leeson, of St. Thomas' Hospital. He says: Viewing influenza in the light of recent researches upon acute specific fevers, there is everything to warrant us in the induction that it is a germ disease; the analogy is complete. My object in this contribution is to draw attention to an experiment which to my mind proves that it is not "in the air," in the commonly accepted sense of the term, but passes from the sick to the healthy in much the same manner as do ordinary infectious fevers. Twickenham has been ravaged by the disease. The Metropolitan and City Police Orphanage here, containing nearly 300 souls, is under my medical care. When the disease appeared. I was particularly desirous that the Orphanage should not be attacked. . . . I therefore prevailed upon the authorities to institute a most rigid system of isolation. The children were not allowed to go to church, the officers were entreated to keep within the walls and grounds of the building, all visiting was stopped both of parents and friends. Now although the disease prevailed all round the institution, even in the head master's house, which is situated near the school, no case occurred among the inmates. I consider this is a conclusive proof that the disease is not "in the air," otherwise the children must have shared the fate of the surrounding families, but that it passes from the patients to their friends and neighbors, and those who come into immediate contact with them, in the same way as do measles and scarlet fever. In previous years, when epidemics of these diseases prevailed in the neighborhood, we always adopted the same means as are now in force against influenza, and our success has been nearly as complete.

Dr. Leeson thus concludes: My partner, Dr. Bolton, has had several very clear cases which seem to place the period of incubation at about five days; he has also drawn my attention to the influenza tongue, which he says is an "anæmic tongue," *the edges being usually indented*, in addition to its dorsum carrying a thin white fur, and, as far as I know, he is the first to recognize its anæmic character. My impression is that the disease is most infectious in its early stages, and I believe a week of isolation will be sufficient for most cases.

Dr. Clement Dukes, M.R.C.P., &c., of Rugby school and hospital, in *The Lancet* of Nov. 20th, gives his experience in several large schools. In the Rugby School, with 414 boarders, in the 1890 epidemic, only 10.3 per cent. were affected; in 1891, with 447 boarders, 19 per cent. suffered; or in the two epidemics, 15.1 per cent. He says: I isolated every case as soon as it arose, as carefully as if I had scarlet fever, small-pox, or diphtheria to deal with. Every case was at once removed to the sanatorium. Every case, however mild, was kept in bed for five days, and another five days at the sanatorium in order to recover strength and to get hardened and disinfected by fresh air. At the first I had not realized the importance of this, and the mildest cases suffered in consequence. They then returned to school, and other precautions were taken for some days to prevent cold. I saw no after effects.

In another large school under Dr. Dukes' care, where the means of isolation were not so perfect, in the 1890 epidemic there was no influenza, while in 1891, 50 per cent. were infected. In another school which he knew of, where no isolation was attempted, 94 per cent. were seized

with the illness in the first epidemic, and not a case during the second. It seems clear that one attack usually protects against a second.

In a much lauded paper read at the meeting last month of the London Medical Society, by Dr. Julius Althaus, and much discussed, the author expressed the opinion that the disease is not a catarrh, but an infectious nervous fever, and he referred all the symptoms to irritant poisoning by a "grippal toxine" of different centres of nervous force in the *medulla oblongata*. He attributed the peculiar fever to congestion of the thermolytic (heat) centre in the bulb produced by the irritant effect upon it of the "grippal toxine." The other symptoms of the nervous form of "grippe" were similarly referable to various centres in the bulb.

As to prevention, we believe fully in the truth of the words of the New York Medical Record of the 12th inst.: "There is no greater protection against disease than a good physical condition." This applies to grip as well as to any other disease. The reader will find more on this subject in another article herein.

We give, however, here, "for what it is worth," as it can do no harm, what a writer in the *Lancet* (Lond.) of the 12th inst. recommends, as follows: Two or three drops of equal parts of pure carbolic acid and glycerine are dropped on the handkerchief in use every morning *before leaving the bedroom*. It "has not failed in stopping the progress of the infection in any household in which it has been tried," the writer says.

THE GREAT REST REMEDY OR PREVENTIVE.

The value of rest has been much insisted upon in recent years, and often referred to in this JOURNAL. There can be little doubt of its great utility in this age of strain and excitement. There are many persons who need nothing so much as simply to lie fallow for a time, to let tired nature have some chance to recuperate and to repair the waste which goes on so continuously. The difficulty is to obtain the conditions under which rest of the right kind is practicable. Some change of environment is usually needed, as without it relaxation of care and excitement is hardly possible. It is here that some varieties of travel find their best application. Travel is too often the reverse of restful, and there are cases in which one seeks in travel, not rest, but distraction, change, mental stimulation. The sea voyage combines continuous life in a pure and invigorating atmosphere, constant passive motion without fatigue—change of scene, novel conditions of life, freedom from cares, worries, and excitements, mental and physical rest; very important points, and the sea voyage deserves a high place among the varieties of treatment by rest. There are, of course, the drawbacks of sea-sickness, separation from home and friends, possible bad weather, and some risk. The patient who seeks the benefits of rest on shipboard must sedulously shun one snare, viz., imprudence on landing; and he must not prematurely resume habits of activity after the luxurious rest of a voyage. One form of voyage the *Lancet* particularly recommends, that from Cairo to the Nile cataracts in a "dahabiyeh," or Nile steamer. This can be performed with all the accessories of luxury, in one of the most perfect climates in the world, and through a country abounding in interest. The season is from November to March, and continuous sunshine may be reckoned upon as soon as Luxor is reached. The trip from Cairo to Assouan and back can be made by steamer in three weeks. The dahabiyeh is at the command of its occupants, and several months may be thus spent. Visits can be arranged to many interesting ruins, and some sport may be obtained. The cost per head of a voyage by dahabiyeh is reckoned at 25s. a day. The only drawback to the almost perfect character of the climate is that it is sometimes very cold at night. Another region worthy of note, the *Lancet* says, is the Algerian verge of the Great Sahara Desert. There are various oases, of which Biskra is perhaps the best known, now accessible by rail from the seaports of Algeria, where the continuous sunshine, the profound calm of the desert, and the "far-offness" from the rush and strain of modern civilization, makes a combination of great utility in certain cases. But the accommodation in these oases is bad, though improving; the journey from the coast is performed very slowly and uncomfortably. Yet, probably, ere long

a month or two on the edge of the Sahara will be a familiar resource to those who want to escape from home cares and to breathe a perfectly new and unfamiliar atmosphere. The mountains offer another resource. For purity of air, perfect calm, and relief from excitement, the mountain stations are comparable to the desert sanatoria. They are, however, much more stimulating, and hence are unsuitable for cases in which we desire a sedative rather than a stimulating effect. Their influence upon cases of nervous breakdown, now so large a factor in practice, is a subject that has not yet been thoroughly worked out. Where there is much irritability, marked dyspepsia, and obstinate insomnia, the mountains are generally, and probably justly, held to be rather injurious.

HOW TO AVOID "TAKING" INFECTIOUS, OR DISEASE GERMS.

"If men would give up their vices and lead healthy lives in healthy surroundings, a race would be reared capable of withstanding the inroads of disease and blessed with an organization affording no home and no food for the microscopic enemies which surrounded them."

THIS "text" is from an address delivered by Dr. Favell, M. R. C. S., Eng., &c., at a recent meeting of the Sheffield (Eng.) Medical Society. The truth of the words no competent physician would question. There is no royal road to exemption from disease germs; and yet to so fortify the human body as that it shall resist the development of germs within it is after all but a simple process, a habit, and with a little practice, and, usually, some self-denial, not at all an arduous or unpleasant habit. Given, a firm conviction that prevention is better than cure—that it is better to make considerable effort to prevent disease and keep well than to get sick and resort to drugs, and possibly be carried "over the river"; and given, too, a little correct knowledge—medical knowledge—of the rules and simple requirements of health, with but reasonable common sense and prudence, and the practice is easy.

There are only two principal ways in which the germs of infectious disease enter the body, namely, by the stomach, with food and drink, or possibly with only saliva from the mouth being swallowed, and second, by way of the lungs, with the breathed air. A stomach that is in a healthy condition, from not having been overtaxed with excess of, or irritated by improper, food—compound mixtures or a crude or "rich" diet, will digest, destroy or render entirely inert the germs of such diseases. This has been abundantly proved by experiments, some of which are noted on another page herein. And it appears clear that the germs cannot enter the tissues or blood or other fluid of the body through the lungs if the mucous lining or covering of the bronchial tubes and air cells be sound or whole. The germs of diphtheria, and possibly of some other diseases, get no further than the throat, where in some little abrasion or defect in the mucous membrane they take root, develop and grow, and give rise to a virus which poisons the whole system. It seems possible that germs from breathed air lodging on or adhering to, an irritable or weak mucous membrane with no special break or defect in it might set up a sort of mechanical irritation and give direct rise to a defect or break in the membrane, and so be able to take root.

Furthermore, it is plain that pure healthy blood has bacterioidal or germicidal powers which will destroy the germs if by chance they do gain access into the blood through a chance defect in the digestive fluids or in the air passages. From actual scientific investigations it has been fairly proved, witnessed under the microscope, that certain healthy-blood cells, called leucocytes, will attack any foreign foe of the nature of disease germs and destroy them, as we have explained on repeated occasions in this JOURNAL. Should the germs gain access in large numbers the neighboring leucocytes are quickly reinforced by others, and like "A host of fighting men," they destroy the invading foe. Should the leucocytes not be in a healthy condition or not numerous, or the germs enter the body in overwhelming numbers, the contest may be fatal to these defenders of it, and disease, and perhaps the death of the organism result.

It is evident that on the health and vigor of the body as a whole we must depend for ability to resist the inroads of disease germs. It is well known to be sure that apparently healthy vigorous individuals often succumb to infectious diseases, more especially, it appears, to typhoid

fever, but we may be sure, from all the investigations that have been made, as indicated above, that in all these cases *something* was wrong, something in the tissues or fluids of the organism which was defective. The defect might have been in these special blood cells, from some injurious habit, perhaps from a tobacco habit, or from the immoderate use of alcoholic spirits or tea, or from over eating, the latter often giving rise to defective tissue nutrition, even in apparently healthy men and women, in the prime of life; or as is probably most common of all, the fluids or tissues may have been in a defective depressed condition from general external insanitary surroundings, weakening the leucocytes and promoting a bacterial soil. So that absolute cleanliness and purity everywhere, within and without, — in water, air, food and bodily fluids, is of the first importance.

It appears that the use of aromatics or the derivatives of the essential oils, as of thyme or thymol, and even "perfumes," are useful in this behalf, in times of epidemics. Pasteur has shown that the activity of certain of these germs is impaired through "association" with minute quantities of those substances which in larger proportions would entirely de-tray them. Hence the use is recommended of mouth and throat washes of such, as a prophylaxis, in diphtheria, and of the free use of them, as on handkerchiefs, as a preventative of grip, as noted elsewhere.

Whatever else is done, keep far enough away from all cases of infectious disease without being selfishly unkind to any of your friends and neighbors who may be infected.

Since writing the above we find the following in the Medical Record (New York) of the 12th inst.: "There is no greater protection against disease than a good physical condition, in which the stomach craves and digests food, the intestines, the kidneys, the skin, and the lungs remove waste products promptly, the liver elaborates the crude nutrient material into the finished product ready for use in construction and repair, and secretes in abundance the antiseptic bile; and, in short, the whole economy acts as one compact and well disciplined army, with all its branches—the cavalry, the infantry, the artillery, and the engineer corps—working in harmony each with the other, and each with its own particular sphere. Bacilli may then attack, and micrococci may marshal their forces in vain, the human citadel is impregnable, and the garrison within laughs at the liliputian host which seeks to do it battle. But let discord enter in, let one or other arm of the service become disabled or insubordinate, then all are disabled, and the besieging forces without soon succeed in gaining an entrance, and the battle within the walls becomes a struggle for life or death, or for the even more to be dreaded imprisonment of chronic and disabling disease."

In conclusion, in the words of an amusing lyric, on the part of a hunted bacillus, which has just been published and come to our notice,

"Your plague remains; again you must face it.
Breed less and breed better, and give up your vices,
Your feasting and drink, your sinful devices,
Which weaken your limbs and ruin your vitals,
And bring on diseases of all sorts and titles.
When your tissues are sound you'll not find us about you."

MILD WINTER weather in an artificial climate may be enjoyed at the largest sanitarium in the world, at Battle Creek, Michigan. This is a high class institution, in which to acquire health, when this blessing has been lost, and at a very moderate cost.

ABSOLUTELY RELIABLE INSURANCE, at the most reasonable rates we know of, can be obtained in the Canadian Mutual Life Association, Assessment System. This association has been established eleven years, and has worked up, under its excellent management, to a high position. We confidently recommend it as being as safe as any stock company. The head office is 8 to 12 King St. E. Toronto.

THE HANDSOMEST CALENDAR, we believe, which has ever been issued in Canada, taking it altogether, we have just received from Geo. Gale & Sons, manufacturers of "the Dominion Wire Mattress and Combined Iron Bedstead," of Waterville, Que. It "speaks volumes" for the enterprise and progress of this old firm.

FOR "PHYSICIANS SUPPLIES" write to Stuart W. Johnston, Toronto, who is now prepared to fill all orders in this line. He solicits correspondence, and will send quotations and price list on application.

HOW THE PUBLIC MILK SUPPLY IS MANAGED IN COPENHAGEN: LEADING THE WORLD.

IT is well to insist on a good standard of milk, free from water adulteration, but to rely upon milk because it shows full specific gravity, as is commonly done, is as unsafe as to rely upon a chemical analysis only in the case of drinking water. The chemical composition and physical qualities of milk are such as render a variety of pollutions possible and even probable, which may be most injurious to the health of the consumers, especially of infants. Milk is subject to such pollutions from the moment it is formed in the udder of the cow to the moment when, after more or less manipulation, it is consumed. While the milk can be infected in the cow itself, as for example, by tubercle bacilli, or polluted by certain ethereal oils from the fodder, the pollutions to which it is exposed after having left the udder are numerous. It can immediately come into contact with dirty teats and udders, slovenly dairymaids with virulent microbes on their hands or clothing, or be polluted by the foul air of the cow houses, the minute odorous particles of which milk so easily and freely absorbs. After being taken from the cow houses the milk may be polluted by contact with many animate and inanimate substances, not to mention the virulent microbes in ordinary dirt—those of cholera, diphtheria, typhoid fever, scarlet fever, and foot and mouth disease—of which experience has but too often furnished proofs as striking as sad.

In consideration of all this the Copenhagen Milk Supply Company undertook in 1878 to supply the inhabitants of the Metropolis of Denmark and more especially the infant population with pure and unadulterated milk. The following is a synopsis of the rules and regulations, as given in the Glasgow Sanitary Journal, from a pamphlet published under the supervision of the Danish Government and presented to the members of the late International Congress of Hygiene in London: It was decided in the Company's statutes in the beginning that any profits exceeding 5 per cent. were to go towards reducing the price of milk and improving the business generally; the undertaking thus assuming not only a common mercantile, but also a hygienic and philanthropic character. On this account the Company placed itself under the control of experts and persons having no pecuniary interest in the matter. These persons form a committee of control whose members have no share in the business.

During the past year 22,000 examinations as to the density, and an equal number as to the specific gravity, of the various kinds of milk and cream have been made in the Company's dairy alone. Every evening, samples are taken of each contractor's milk and cream, and submitted to analysis. Each morning, before the delivery of the milk, samples are taken of each sort of milk and cream and sent to Professor Bohr, who publishes monthly the results of his daily analyses, giving the highest, lowest and average figures.

The Company does business only with such contractors as give a moral guarantee that the Company's rules for the feeding and treatment of the cows be strictly carried out, and whose farms have a superior and healthy stock of cattle; and the price paid for milk is higher than the farmers could possibly obtain elsewhere. The cows on the various farms are examined every fortnight by competent veterinary surgeons, seven in number, who report on the condition of the cattle, the state of cleanliness in which both cows and cow-houses are kept, health of the cows, the feed, how much milk is yielded, &c., and an inspector is regularly sent out to examine thoroughly the state of the farms. The Company sends out, too, a head dairymaid to control the milking. Her attention is especially directed to securing cleanliness during milking, and to the cooling of the new milk.

FEEDING AND MANAGEMENT. The food of the cows must be of such a nature and quality that no bad taste or taint may be imparted to the milk by it. Brewer's grain and similar refuse from distilleries are strictly forbidden, as also every kind of fodder which is not fresh and in good condition. Turnips and rutabagas are absolutely forbidden; carrots and man-o-lis are permitted up to a limited amount, when at least $3\frac{1}{2}$ kilograms of corn, bran, and cake are given along with them. Cows supplying infant's milk get only carrots. Rape seed cake is the only oil cake used, and $\frac{3}{4}$ kilograms is the utmost limit, along with at least $2\frac{1}{2}$ kilograms of corn

and bran, besides hay [a kilogram is a little over 2 pounds]. Infant's milch cows must not have any oil cake. Stall feeding in summer is not permitted under any circumstances. The cows must be fed in the open air upon clover and grass. Vetches are forbidden. In case of necessity dry food or cut corn may be given, but on the field. This is, however, only to take place with the Company's permission. In autumn the cows must be clipped on the udder, tail and hind quarters before being taken in. Calving must be so regulated that the milk sent in during the autumn, especially the months of September and October, is not less than two-thirds of the largest quantity sent in any other month. The milk of cows newly calved must be withheld for twelve days. The milk of cows yielding less than 18 kilograms per day must also be withheld.

MILKING AND COOLING. The greatest cleanliness must be observed during milking. Every dairymaid is supplied with a dress and handkerchief, which she wears whilst milking. These articles must be washed two or three times a week, and hung up between each milking in a dry and airy place. She is also supplied with a good lantern, which, during the darker months, is placed so as to cast its light in under the cow. Fifteen kilograms of ice, making due allowance for waste, must be kept in stock for every 50 kilograms of the average quantity of milk from each farm. Every contractor must be provided with a Lawrence cooler, to be obtained on hire from the Company. Immediately after milking, and at all seasons of the year, the milk must be cooled on the cooling apparatus with ice and water, so that when sent off from the farm it is not above 5° C. (about 41 F.)

DELIVERY OF THE MILK. The milk must be sent from the farm to the station once or twice daily, according to the requirements of the Company, either as sweet milk, "half-skimmed," or cream, and not earlier than is absolutely necessary. In the summer the carts must be provided with a cover to protect the milk from the sun. The Company supplies the necessary cans which it returns cleaned. All cans, on their return to the farm must be carefully rinsed with cold water, all dirt which may have adhered to them during the return journey removed, and the cans placed in a cool airy place until again required, protected from all impurities, with lids off and bottom upwards, but in such a position that the air can get freely into them.

FURTHER REGULATIONS. The contractor is bound to follow out closely the instructions of the veterinary surgeons. Any cow declared by the veterinary surgeon to be suffering from tuberculosis must be instantly separated from the rest of the herd, and got rid of as soon as possible. The contractor must immediately inform the Company of any case of illness which may arise between two visits of the veterinary surgeon. If necessary, he must withhold his milk until the veterinary surgeon arrives and inquires into the circumstances. In such cases the full price is nevertheless paid for the milk. The contractor must watch over the health of all who reside on his farm or work upon it, also the families of the latter. Should a case of infectious disease arise among any of them, he must immediately report the fact to the Company, and withhold his milk, which will nevertheless be paid for as usual, if the conditions are fully complied with. Samples of milk from each farm, immediately on arrival at the Company's dairy, are tasted by an expert, and, should any have the least taint, it is rejected. Should the temperature have risen to 10° C. it is rejected and disposed of at the expense of the contractor. All milk and cream is for greater precaution subjected to a careful filtration. The milk is forced by its own weight from an upper enamelled iron tank into a lower one, in which are placed two gravel filters of increasing fineness one above the other. After having passed through the filters and also several layers of fine cotton material, the milk runs off through a pipe which empties itself into the upper part of the tank. It is astonishing, it is said, after all the previous care, to see the quantity of disgusting dirt which is thus got rid of by filtering. Cream and infant's milk is bottled into clear liter (quart) bottles immediately after filtration. The corks are tied down and sealed, and the bottles put into ice until next morning. The rest of the milk, sweet and "half-skimmed," is put, in the cans in which it arrives, into ice for the night. Early the next morning the milk having been filtered is poured into other sealed cans, in the carts, so that the drivers are prevented from tampering with the milk. In the dairy itself the greatest care is taken that the

milk shall not absorb injurious substances from the exhalations, &c., of the numerous workpeople. The workpeople wear white overclothes, and a plentiful use of pure cold water secures the greatest possible cleanliness. In case of infectious disease breaking out in any of the workpeople's families, the person affected is suspended from work, but receives full wages, so that there is no temptation for concealment.

In 1893, 120 cows were withdrawn on account of tuberculosis, out of the 4,284 cows kept by the 49 contractors; of these, 3 cases were tuberculosis of the udder. Tuberculosis was found on 37 of the 49 farms, only 12 being free; 337 cows were temporarily withdrawn for other diseases, the most frequent being diseases of the udder, sore teats, retention of the after-birth, and inflammation of the womb. The supply from two farms was suspended for four weeks on account of cattle disease, and from one on account of scarlet fever.

The amount of milk sold during the last year amounted to 12,699,243 pounds (6,349,621½ kilograms). Of this, 5,081,747 pounds (2,540,874½ kilograms) were sweet milk, the remainder being half skimmed, infant's milk and cream. The prices were: infant's, 1s.; sweet, 10d.; half skimmed, 5d.

ON THE WINTER WORK OF HEALTH OFFICERS

Nearly all public health effort has heretofore been of a limited, narrow character, aiming only to prevent or, indeed mainly, to suppress epidemics; and all action has been almost entirely of a coercive character. Because of the assumed sacredness of the liberty of the individual subject and the jealousy with which the said liberty has been guarded it has been possible to deal legally only with the more glaring sanitary defects bearing upon the community, and filthiness of body or dwelling house, or other unhygienic personal habits of life, were regarded as outside the influence of public health organizations or boards, and were for the most part are still, left as if they were expected to rectify themselves; while nevertheless efforts, vain to be sure, were being made to improve the morals of these great unwashed. But gradually it has dawned upon sanitarians that the unhygienic condition of the individual has a great deal to do with the kindling and spread of infectious diseases and epidemics—while it is a great obstacle to moral progress, and as it has not been possible to legally coerce individuals into habits of personal and household cleanliness, more recently efforts have been made to enlighten and instruct the people upon the value, and guide and instruct them rather than force them into the paths, of health. Wherever tried the results of this course have exceeded expectations. Man is evidently rather a teachable than a "drivable" animal. The interest created in this way in individual hygienic improvement has been in some instances most gratifying and the latter effects highly satisfactory. It has been found that much more can be done in this behalf in an educational way than by coercion. Acts of Parliament and by-laws do not give rise to the character to realize them and carry them out, but often rather to a feeling that they are an intrusion and an interference; indeed they may properly be said to be formed as are governments to teach men how to pass beyond them.

The winter season in this climate affords excellent opportunity for the instruction of the people in the ways of preserving health and preventing disease. It is the educational season. Canada has now a large number of medical and other health officers; Ontario boasts of many hundreds. "What is to be their policy?" Numbers count for but little; quality, action, for everything. We cannot do better than quote here the words of Dr. W. L. Mackenzie, M.A., &c., a well known medical officer of a large district in Scotland. He says: "What I am concerned to indicate is how much can be done by the rousing of individual effort and the enlisting of voluntary service. It is well from time to time to check our ever-delusive officialism by the keen-eyed deliverances of an uncompromising individualist." "Perhaps we *are* all on the wrong tack," and perhaps Mr. Auberon Herbert, through his individualist association [advocated in the Contemporary Review a few months ago], may "do more to augment the life-values and lessen the disease-rates than all the medical officers of Scotland." That, however, will depend on many incalculable factors. "When for health propaganda Mr. Herbert asserts the need

of individual initiative. I am at one with him ; but I do not follow him when he maintains that 'officials' in municipalities, since they must be more or less in opposition to the people, are not well suited to voluntary propaganda, which, therefore, to be effective, must be non-official. On the contrary, I should say the officer of health, whose interest is the public interest, is by his free position, personal connections, and direct sources of information, pre-eminently the person to initiate, to organize, and to develop a general voluntary system of health instruction." Mr. Mackenzie further urges that it is the work of the Medical Officer to disturb the public apathy in regard to health, to generate a social sensitiveness that shall regard filth as an indecency, defective ventilation as a breach of fashion, and more sleeping space as, at least, a legitimate ambition ; in short to institute a fashion of healthiness.

During the next quarter of a year the health officers of Canada could do an incalculable amount of everlasting good by instituting in their various municipalities or localities a system for health propaganda. The non-medical officer, the secretary or inspector of the local board, or the chairman when he is not a medical man, if not disposed to engage directly in the work, could enlist the services of the medical officer or other physician, and himself aid in organizing a series of health lectures or health "talks," for the instruction of the people. Local societies could be formed for this purpose, for the distribution of health pamphlets and leaflets. The aid of teachers and the clergy could often be enlisted in the cause. The special subjects to treat upon are numerous—ventilation, water supply, and a host of others, the most practically useful of which in each case would naturally be suggested to the mind of the medical practitioner. On another occasion we may endeavour to enter more into detail on this important subject. How is it that it has not been brought up and acted upon by the Association of Ontario Health Officers? Since writing the above, we observe that a councillor in Scotland has moved to make the medical officership of the county at least in part a teaching position.

MISCELLANEOUS NOTES AND COMMENTS.

HOW EASILY HE GET NEARLY ALL DISEASES AT ONE TIME.—Mr. Lawrence K. Jerome, in his "Three Men in a Boat" says: "It is a most extraordinary thing, but I never read a patent medicine advertisement without being impelled to the conclusion that I am suffering from the particular disease therein dealt with, in its most virulent form." This is the experience of many and hence the free use of the patent nostrums. He says, I went to the British Museum to read up the treatment for some slight ailment which I had—hay fever I fancy it was. I got down the book, read all I came to read ; and then, in an unthinking moment, I idly turned the leaves, and began indolently to study diseases generally. I forget which was the first distemper I plunged into,—some fearful devastating scourge, I know,—and before I had glanced half down the list of premonitory symptoms, it was borne in upon me that I had fairly got it. I sat for a while, frozen with horror, and then, in the listlessness of despair, I again turned over the pages. I came to typhoid fever, read the symptoms, discovered that I had typhoid fever, must have had it for months ; wondered what else I had got ; turned up St. Vitus's dance, and found, as I expected, that I had that, too ; began to get interested in my case, and determined to sift it to the bottom and so started alphabetically—read up ague, and learned that I was sickening for it, and that the acute stage would commence in about another fortnight. Bright's disease, I was relieved to find, I had only in a modified form, and, so far as that was concerned, I might live for years. Cholera I had, with severe complications ; and diphtheria I seemed to have been born with. I plodded conscientiously through the twenty-six letters, and the only malady I could conclude I had not got, was housemaid's knee "I felt rather hurt about this at first ; it seemed somehow to be a sort of slight. Why hadn't I housemaid's knee? Why this invidious reservation? After a while, however, less grasping feelings prevailed. I reflected that I had every other known malady and I grew less selfish, and determined to do without housemaid's knee. I pondered, then wondered how long I had to live. I tried to examine myself. I felt my pulse. I could not at first feel my pulse at all. Then all of a sudden it seemed to start off. I pulled out my

watch and timed it. It made a hundred and forty-seven to the minute. I tried to look at my tongue. I could only see the tip, and was more certain than before that I had scarlet fever. I had walked into that reading-room a happy, healthy man. I crawled out a decrepit wreck.

ON THE GERMICIDAL ACTION OF THE GASTRIC JUICE.—Dr. Kianofsky, of St. Petersburg, in the *Vratch*, gives in a lengthy paper the following conclusions, from elaborate experiments on fifty persons, some healthy and some with gastric cancer, dilatation, etc. :—A fasting healthy stomach always contains great numbers of microbes of various species. The gastric juice possesses distinct antimicrobial properties, attributed mainly to the presence of free hydrochloric acid. Given a gastric juice of a normal average general acidity, with normal proportion of this acid, the secretion kills the bacteria in a systematic manner. Nobody should allow the stomach to remain empty for a long time after morning rising; especially should medical practitioners take care in this regard. In times of epidemics everybody should avoid fasting for a long period.

SOME STREET DANGERS.—It would be hopeless within the limits of our available space to discuss at length the various causes of danger which in yearly growing numbers beset the path of the street passenger, or to attempt to hedge them in with adequate precautions. Now it is the crush of wheel traffic, now some slippery fruit skin, or the greasy, miry pavement itself which compels him to walk warily. A snapped or fallen electric or telephone wire has again and again wrought serious mischief. Flying chimney-pots and loosened slates have likewise played their part. The security of boardings, too, has of late been sorely tested. These latter, and the whole series of swinging signs and sign letters, now so common in large towns, constitute a perpetual menace to the life and limb of wayfarers. Placed where they can well catch the wind, and constantly exposed to corrosion by weather, it would indeed be strange if their creaking attachments did not often prove unequal to the weight they have to support. As a matter of fact, the overthrow of many is among the most familiar incidents of a storm on land. Aesthetically the reverse of attractive, their demolition thus or otherwise could only be regretted on utilitarian grounds. It is therefore clearly to their owners' interest to ensure their stability. It is also no less clearly within the functions of councils and local authorities to provide all possible safeguards against these and other evident causes of street accident.

CARBONIC ACID RESPIRATION.—At the late International Sanitary Congress Dr. W. Marcet, F.R.S., read a paper on the effects of the respiration of carbonic acid on man. His conclusions were :—1. That when air containing an excess of carbonic acid is breathed, the gas accumulates rapidly in the blood, and under such a condition the phenomenon of nutrition is more or less interfered with; people forced to work in ill-ventilated rooms and buildings should sleep in as pure an atmosphere as possible, to rid their blood of the carbonic acid absorbed in the day time. 2. That the effects produced by inhalation of carbonic acid gas depend greatly on the rapidity of the exposure. The sudden inhalation of air containing a large proportion of the gas may produce rapid insensibility and death, while this same air might have been breathed for some time with a certain degree of impunity, had the carbonic acid present been increased gradually. 3. That when life is threatened by the inhalation of carbonic acid there is no reason to despair of artificial respiration so long as the heart is beating; the gas will diffuse rapidly from the blood into the air with which the lungs are inflated, and thus be carried out of the body.

THE AREA AND POPULATION OF THE GLOBE.—The recent publication of the *Bevölkerung der Erde*, of Drs. Wagner and Supan, by Perthes, of Gotha, gives us the most reliable information as to the area and population of the earth now obtainable. The estimate for the present total population of the earth is 1,480 millions, an increase of 46 millions over the last estimate, for 1882. The exact enumeration of 836 millions (about 56 per cent of the whole) has been accomplished by census or registration. The population of the chief divisions of the globe is, in round numbers: in Europe, 357 millions, giving 94 inhabitants to each square mile of area; Asia, 825 millions, or 47 to the square mile; Africa, 163 millions, or 14 to the mile; America, 121 millions, or 8 to the mile; Australia 3 millions, or 1 to the mile; and in the Oceanic Islands, 7 millions, or 10 to the mile. In Europe, Belgium exceeds all other countries

in density of population, with 530 persons to the square mile; next follows Holland, with 365; and the United Kingdom, with 312; but whereas in England the density is 480, in Scotland it is only about one-fourth, and in Ireland about one-third that of England. In Norway and Finland, the most thinly populated countries in Europe, there are only about 16 persons to the square mile. Of China the estimate is 361 millions, giving a density of about 77 to the square mile. It is in respect of Africa that the greatest doubt necessarily exists. These statistics make it manifest that there are still vast areas of the habitable surface of the earth almost, if not quite, unpeopled.

INFLUENCE OF DIET ON HAIR GROWTH.—In the British Medical Journal of July 25th Dr. E. C. Mapother says: Several cases of shedding of hair after influenza have confirmed my opinion that diet has much to do with the production and with the cure of symptomatic alopecia. Hair contains 5 per cent. of sulphur, and its ash 20 per cent. of silicon and 10 per cent. of iron and manganese. Solutions of beef, or rather of part of it, starchy mixtures, and even milk cannot supply these elements, and atrophy at the root and falling of hair result. The color and strength of hair in mammals is not attained so long as milk is their sole food. The foods which most abundantly contain the above named elements are the various albuminoids and the oat, the ash of that grain yielding 22 p.c. of silicon. With care these foods are admissible in the course of febrile diseases. I have often found a dietary largely composed of oatmeal and brown bread greatly promote the growth of hair, especially when the baldness was preceded by constipation and sluggish capillary circulation. Those races of men who consume most meat are the most hirsute (hairy). I have always found that friction of the scalp with pomades and lotions dislodges many hairs which might otherwise remain, and that cold or tepid baths with salt added and rough rubbing of the rest of the body will flush the capillaries of the affected part more effectually. Beside, when pomades are used, frequent washing becomes necessary, and this is conducive to baldness.

DIET AND GOUT AND KINDRED AFFECTIIONS.—In a late number of his Archives of Surgery Mr. Jonathan Hutchinson says (Brit. Med. Jour.) that he has for many years been in the habit of forbidding fruit, with sugar, to all patients who suffer from tendency to gout. In every instance in which a total abstainer of long standing has come under his observation for any affection related to gout he has found that the sufferer was a liberal fruit eater. Fruits are, of course, by no means equally deleterious; cooked fruits, especially if eaten hot with added sugar, are the most injurious, the addition of cane to grape sugar adds much to the risk of disagreement. Fruit eaten raw and without the addition of sugar would appear to be comparatively safe. Natural instinct and dietetic tastes have already led the way in this direction, few wine drinkers take fruit or sweets to any extent, and Mr. Hutchinson suggests as a dietetic law that alcohol and fruit sugar ought never to be taken together, and he believes that the children of those who in former generations have established a gouty constitution may, although themselves water drinkers, excite active gout by the use of fruit and sugar.

TO THE PROFESSIONAL AND NON-PROFESSIONAL.—Dr. Frederick Montizambert, (Que., Can.) at the October meeting of the American Public Health Association, in his presidential address, said: to the medical men of Kansas City and its vicinity, the meeting was meant in part as an appeal to quicken interest in the more purely preventive work of the profession, to increase interest in the organization and working of the coast quarantines and health boards; the sewerage of cities; the disposal of garbage and refuse; the purity of water-supply; the infectious diseases of animals now known to be closely related to those of man; as well as other broad questions of modern sanitation. To the non-medical of all ages, sexes and conditions it is an appeal to take a lively and an active part in the great crusade against dirt and disease. Sunlight, pure air, and thorough cleanliness are natural enemies to disease germs. There is no sounder philosophy than the old saying that, "there is more health in a sunbeam than in drugs, more life in pure air than in a physician's skill," and that, "sunlight may fade your carpets, but better that than have its absence fade your checks."

PELEE ISLAND AND ITS WINES.

Pelee Island, which has of recent years become famous for its luscious grapes and fine flavored wines, lies fifteen miles south from the most southern part of the Canadian mainland, about the centre of Lake Erie, and is the most southern portion of British North American Territory. In the forties grape growing assumed considerable proportions in the neighbouring islands, under the American flag, but it was not until 1861 that the first vineyard was established on Pelee Island. It was known as the Vin Villa Vineyard. At first a market could not be obtained in Canada and its grape product was sent to Sandusky, pressed and sold. In 1873 the well known wine firm, Messrs. J. S. Hamilton & Co., of Brantford, became identified with it, and since that date have controlled its entire output. Later the West View and the South View Vineyards of the island, and also the Pelee Island Wine and Vineyard Co., were established and Messrs. J. S. H. & Co. were appointed sole general and export agents for their united products. Splendid wines, dry and sweet, are produced, and from their superior quality it is no wonder that the "Pelee Island Wine Co.'s wines are driving imported wines out of the market." The company have six extensive wine houses with a cellarage capacity of a quarter of a million gallons. A very fine dry wine known as "Dry Catawba," and a "Pelee Island Claret," possess high medicinal properties. The firm have also a splendid well matured sweet red wine, well known as "St. Augustine," prepared for communion purposes and selected by a special committee of the Diocese of Ontario for use in the diocese. To protect themselves, the public and the trade, Messrs. J. S. H. & Co. have registered this brand at Ottawa and will prosecute any person or persons infringing on their registered brand. Most leading physicians in Canada recommend these Pelee Island wines in preference to imported wines for the use of their patients. The editor of this JOURNAL, believing that the cultivation of the lighter wines is promotive of temperance, has pleasure in bearing witness to the excellence of the Pelee Island wines, from an experience with them of over ten years.

TO ALL FRIENDS OF HYGIENIC AND TRUE TEMPERANCE
PROGRESS.

THIS JOURNAL has been published and under the same editorship, seventeen and a half years, continuously, with the exception of two brief suspensions in its early struggles with sanitary indifference, first as a bi-monthly (for a few years) and later as a monthly.

IT has become as a "household word," having been quoted by many other papers, including the medical press, not only in Canada but all over the Continent.

WE now purpose issuing it SEMI-MONTHLY, on the 1st and 15th of each month, and trust the semi-monthly visit will be so appreciated by the Canadian people as giving more than double the amount of reading matter each month, and that we shall be enabled in the not very far off future to enlarge it or publish it weekly, at 2 cents a copy and \$1 a year, which has long been our aim.

PHYSICIANS, we trust, will continue to encourage local Boards of Health to subscribe for copies, sent at reduced club rates, for which see title page.

MANY Local Boards have now been regular subscribers for from 3 to 10 or more copies for many years: for example Berlin takes 12 copies; Port Arthur, 10 copies; St. Marys, 7 copies; and Derham, Woolwich, and many other town, village and township boards, 5, 7 or 10 copies.

EVERY local board should receive copies, in order to keep abreast with sanitary progress and encourage the general distribution of health literature of this kind.

WILL our medical friends, especially Medical Officers, kindly aid us, as heretofore, in this behalf?

A LITTLE knowledge is "dangerous" only to the imprudent, who unwisely presume too much upon it.

THE more the people are educated in health matters the more they will appreciate the true physician and abhor quacks and quackery.

THE more medical knowledge, of the true preventive sort, everybody possesses the better for EVERYBODY, including the profession.

READER, can you afford to do without this JOURNAL? Do you believe that prevention is better than cure? Can you doubt that twenty-four visits of the JOURNAL in the year will save you from some of the everywhere prevailing sickness, with its pains and expenses, in life as well as in money?

NOTES ON MEDICAL PROGRESS: OF INTEREST TO ALL.

DR. J. C. PEARSON, District Surgeon, Cape Colony, writes to the *Lancet* highly praising Soire Chlorinate in typhoid fever. He had been for several weeks in constant attendance in the thick of an epidemic of the disease, contracted it, treated himself with this remedy and was convalescent within a week. But, he says, "nothing crossed my lips except the medicine in an ounce of water and milk food," every three hours.

Dr. E. H. DEWEY, a Pennsylvania physician, we may here note, strongly deprecates the "feeding" of fever patients until the return of the normal appetite. If there is need of "feeding," nature, he says, "has been guilty of an enormous blunder." He does not give even milk, and has found it "entirely safe to await the normal appetite before feeding; the reliance for maintaining the strength being on the tissues, aided by such drinks as nature calls for with no obscure language." He has observed in cases so treated an increase of strength as the acute symptoms subside, and while still on tissue support.

AT THE recent annual meeting of the Virginia State Medical Society, Dr. C. A. Shepard, by invitation, read a paper on the "Turkish Bath in Disease," urging the great value of it as an eliminator of impurities in the body—impurities from retained excretions and the results or refuse of mental and physical labor. (*N.Y. Med. Jour.* 5th Dec.) The lassitude, depression, sense of weight in the limbs, and dullness in the head, occurring in the inactive man after meals, was attributed to poisoning with peptones, and the condition called "biliousness" to the formation of alkaloids. Many of the nervous symptoms which accompanied some forms of nervous dyspepsia were due to the formation and absorption of poisonous substances. Such instances showed that while the specific germ was a cause of disease, the chemical factor was more important." He closed with a strong appeal for the more general use of the Turkish bath in medicine.

THE *British Medical Journal* in referring at much length to Dr. Heron's late work on "Evidences of the Communicability of Consumption," says: We have said enough to indicate the nature and value of the evidence collected from the most various source, here presented to us. It only remains to add that the result is both a clear and a valuable contribution to the subject, and that its perusal will tend more and more to strengthen the view now widely prevalent that the time has come to give more practical effect to our views regarding the communicability of the disease than has hitherto been done.

IN THE *Mercredi Médical*, Dr. Féré takes up the assertion that patients undergoing bromid-treatment are more susceptible to infection than others, particularly to the influence of Koch's bacillus. During the epidemics of pneumonia at the Bicetre those persons under the influence of bromides proved most vulnerable. Animals inoculated with tuberculin virus after large doses of bromide began to lose ground immediately and soon died.

THE *Medical Record* (N.Y.) says there is a beautiful "row" in the German bacteriological world about tuberculin. Professor Koch has reproached his colleagues for not making investigations themselves, instead of waiting for him to finish the work, ignoring the fact that such work had been done by Cheyne, Hunter, Nencke and others. Hneppe deals severely with the accusations and shows how ill-founded they are.

TUBERCULOCIDIN is the name of a new substance Klebs has isolated from crude tuberculin, and which is claimed to act *specifically on the bacilli*. It is an albumose, and it, or its combinations with tannin or other precipitants, has an undoubted effect in tuberculosis, never exciting fever, and producing marked improvement. Hectic and night-sweats disappear; signs of catarrhal process in the lungs, together with cough and expectoration, rapidly diminish; appetite and body-weight increase.

AT A recent meeting of the Pennsylvania Medical Society, in the discussion of a paper on Cystitis, Dr. C. P. Noble said: "I have heard no mention of benzoate of ammonia or benzoic acid. I have found these drugs of great advantage in foul alkaline urine. Rest a restricted diet, and leaving off meats, have had a good influence." Query how would the latter have succeeded without the drugs?

THE proximate cause of suppuration it is now said is, after all, always chemical, "for it has been conclusively proved that suppuration can be produced by chemical agents without the presence of microbes, and that when it is produced by microbes the action is really chemical." So writes the London correspondent of the *Therapeutic Gazette*. And that "This is a startling statement, but one which must, nevertheless, be accepted."

RELATIVE to nervous sequelæ after influenza, Dr. Church in a paper before the Chicago Medical Society said: When divested as far as possible from all falsifying circumstances, the lunacy reports of the Cook County Court show a marked increase in the number of persons becoming insane during the prevalence and decline of the disease

A BROKEN heart: A healthy muscular man (Brit. Med. Jr. supplement) while pushing a heavy wagon was suddenly seized with pain in his chest, soon after which there came on a peculiar purring noise, clearly of cardiac origin and audible several feet off. He was ordered to rest, but kept on with his arduous labor and about two years after suddenly fell dead. At the necropsy the heart was found enormously enlarged. The right aortic valve was partially torn from its point of attachment, its free detached edge being slightly thickened. Corresponding with its former seat of insertion was a wide linear tendinous-looking scar, slightly raised.

NOTES ON CURRENT LITERATURE.

THE ILLUSTRATED NEWS OF THE WORLD has given in the last few weeks unusually attractive numbers, which is saying a good deal for this magnificent publication. The special Christmas number was very fine.

THE CENTURY Christmas number is perhaps one of the best, if not the best, number ever issued of this high class monthly. Highly attractive things are promised for the coming year.

THE COSMOPOLITAN has rapidly gone up to a well deserved position among first-class monthly magazines, and is only \$3 a year. It is indeed an elegant publication of the highest order (5th Avenue and Broadway, N.Y.).

A NEW CANADIAN MONTHLY.: The Dominion Illustrated announces an important departure, and one that will mark a new era in the high class journalism of Canada. The publishers of that splendid weekly have decided to convert it into a monthly with the beginning of the year. It will be a 64-page magazine, differing in shape from the present one, handsomely illustrated throughout, and its pages will be graced with the writings of the most gifted Canadian authors. It will be called the Dominion Illustrated Monthly. Price \$1 50 per annum. Address, the Sabiston Litho. & Pub. Co., Montreal.

THE METHODIST MAGAZINE (William Briggs, Toronto: \$2 a year), with the December number, closes its thirty-fourth volume. It has been described as "an ideal family monthly," and is of special interest to all Methodist readers. The announcement for 1892 embraces twelve papers on India, with one hundred and thirty engravings, and a series of handsomely illustrated papers by the editor, which will describe his travels in Egypt as far as Nubia, through Palestine and Syria, in Asia, Turkey and Greece; also several illustrated papers on "Picturesque China," on "Eastern Europe—Roumania," "Bulgaria," etc.

THE POPULAR SCIENCE MONTHLY is rapidly coming to the front as an illustrated magazine. Until recently it published only a few simple drawings, where they were specially needed to supplement the text, but the January number is to have no less than sixty illustrations. Those in the article on American Pottery are especially noteworthy, and the other illustrated articles are Remarkable Boulders, Tail like Formations in Men, the Aviator Flying-Machine, and The Musk Ox. The kinship which Darwinism recognizes between man and the brutes is in a measure confirmed by the facts contained in the article on Tail like Formations in Men.

GENERAL NOTES.

THE Brussels Chamber of Deputies have passed a measure which prohibits all public expositions and demonstrations of hypnotism.

THE Grand Duke Heinrich, as is known, recently died of pneumonia. His room attendant died of the same disease on the 1st inst.; and now his aide-de-camp and his physician, Prof. Oser, are seriously ill with it.

DR. HENSLEY, of Newton Abbot, Eng., attended a child suffering from diphtheria, and was bitten while making a topical application to the patient's throat. The outcome of this inoculation was a virulent form of the disease, of which he died a short time after the death of his patient.

THE Lancet in noticing the last annual Report of the Massachusetts State Board of Health says: One conclusion is stated which will be pretty generally accepted, as it has for many years been regarded as a truism in England, that it "is quite impossible to obtain effluents (i.e. water from sewage) by chemical precipitation which will compare in organic purity with those obtained by intermittent filtration through sand." How long is it since Frankland proved the same thing?

DR. DUNCAN, of Middlesex Hospital, in a recent address to students quoted these lines: "Unless you light your lamp ere dawn, and read

Some wholesome book that high resolves may breed,

You'll find your sleep go from you, and will toss Upon your pillow, envious, lovesick, cross."

THE Birmingham City Council have approved the draft of a bill empowering the corporation to obtain a supply of water from the rivers Elan and Claerwen, in Wales, at a cost of £6,600,000. Thus, very shortly, it appears, London will be the only great city in England which has not the control of its own water supply, and which is content to take water at an exorbitant price from sources liable to serious pollution.

Pelee Island Wine and Vineyards Co., LIMITED.

Brantford and Pelee Island, Canada.

OUR PRANDS OF WINES:

**DRY CATAWBA—Hock, SWEET CATAWBA,
P. I. SHERRY, P. I. PORT, P. I. CLARET.**

(Awarded Gold Medal at Jamaica Exhibition.)

Our Communion Wine (Registered) "St. Augustine"

Chosen by Special Committee, Synod of Ontario, assisted by Analyst Inland Revenue Department, Ottawa, for use in all the churches of the diocese. The most suitable communion wine obtainable. Warranted pure.

Agents in West Indies:—Amigua A. J. Comache & Co. Barbadoes, W. L. Johnson & Co. Grenada, Ottawa Bros. Jamaica, H. W. Cooly, of Kingston St. Croix W. H. Fleming. St. Kitts, E. S. D. Lisle. St. Vincent, John H. Hazell, Sons & Co. Trinidad, Muir, Marshall & Co.

List of wine merchants who are buying agents in Great Britain and Canada, also price lists on application.

J. S. HAMILTON & Co., BRANTFORD

Sole General and Export Agents.

The Largest Sanitarium in the World



This institution, one of the buildings of which is shown in the cut, stands without a rival in the perfection and completeness of its appointments. The first Sanitarium on rational principles in the United States. Incorporated 1867.

The following are a few of the special methods employed: Turkish, Russian, Roman, Thermo Electric, Electro Vapor, Electro Chemical, Electro Hydric, Mechanical, Hot Air, Vapor and every form of water bath. Electricity in every form. Swedish movements, manual and mechanical massage, Pneumatic Treatment, Vacuum Treatment, Sun Baths. All other remedial Agents of known curative value employed. A Pleasant, Cool and Healthful Summer Climate.

Mild Winter Weather

And an Artificial Climate

Produced for those requiring special care.

Special departments for the treatment of diseases of the Eye, Ear, Nose, Throat, Lungs and other special diseases, and for Surgical cases.

Cool Water, Good Climate, Beautiful Location,
Perfect Ventilation, Steam Heating.

The management is well endorsed by leading members of the profession.

For Circular Address, **MEDICAL AND SURGICAL SANITARIUM, Battle Creek, Mich.**

**JAMES HOPE, PRINTER, BOOKBINDER,
STATIONER, ETC.**
Corner Sparks and Elgin Sts.,
OTTAWA.

The Best Bread in Ottawa.

PURE FLOUR, FULL WEIGHT,
NO ALUM OR OTHER ADULTERANT.
ILIFF's Old Establishment
76 RIDEAU STREET.

H. BOHL,

**Electro Gold & Silver Plater,
48 Bank Street, Ottawa.**

Every description of Table-ware Replated
equal to New. Silver-ware, Plated-ware
and Jewellery neatly repaired. Agent
for the celebrated Lightning Cleanser for
the cleaning of Silver-ware, Glass, etc.

RUPTURE

All forms, all ages, all conditions treated. An entirely new system. No failures. Every case a success.

First held securely and in comfort during the hardest work, or severest strain, under all reasonable circumstances, even horse-back riding, then a cure follows. This my last and greatest invention in Hernial Appliances, is the result of twenty-five years continuous practical experience. Remember I have been in business in Toronto over twenty years. This instrument responds to every motion of the body, in coughing, sneezing or lifting, and never slips from its position on the body, either up or down, as all others do, but stays where you put it.

The undersigned knows the true cause of rupture, and has recently discovered the secret—as yet known only to himself—by which a cure can be effected in this terrible affliction without resort to the knife. Don't put it off till too late. Children cured in six to eight weeks. Adults according to the case.

J. Y. EGAN, Hernia Specialist, 266 W. Queen St., Toronto, Ont

In writing please mention Canada Health Journal.



Labatt's
London
ALE and
STOUT.



**Awarded Gold Medal at International Exhibition,
JAMAICA, 1891.**

Only Gold Medal awarded for Ale to Canadian or United States exhibitors.

**JOHN LABATT,
LONDON, Canada.**