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CANADA  
HEALTH JOURNAL

A Monthly Review and Record of  
SANITARY PROGRESS

—EDITED BY—  
EDWARD PLAYTER, M.D.

Public Health and National Strength and Wealth.

For Contents see next page.

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Vol. XII.

JULY, 1895.

No. 7.

# GASTRIC DERANGEMENTS

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## CONTENTS:

The Cholera Outlook—the Harbor of Safety .. . . . . .	119
On the Prevention of Summer Diarrhœa of Infants .. . . . . .	120
The Over-working of Boys and Girls. . . . . . . . . . .	121
Resistance to and Recovery from Disease. . . . . . . . . . .	122-124
What is Mesmerism? .	124-125
Notes from the Work of the Recent Nashville Meeting. . . . . . . . . . .	126-127
Miscellaneous Notes &c. .	127-128
Editorial Notes. .	129-133
Notes on Current Literature. .	134

*O! for a lodge in some vast wilderness,  
Some boundless contiguity of shade.*

--COWPER.

**T**HAT is what people are saying as they wipe the perspiration from their brows, and think of the shady woods, and the breezy sea-side, and wonder if it will ever be cool again.

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# CANADA HEALTH JOURNAL.

A Monthly Record of Sanitary Progress.

VOL. XII.

JULY, 1890.

No. 7

## THE CHOLERA OUTLOOK—THE HARBOR OF SAFETY.

THE best informed medical journals, in most recent weekly issues, think there is not much to be feared from the cholera on this continent this year; yet they sound a note of warning, that it will be best to be prepared for it. There is always danger that it may escape the best organized quarantines on the long Atlantic shore, however vigilant the officers may be. Having broken out in a small town of about 700 inhabitants in Valencia in May, it rapidly spread to other towns. In the epidemic of 1855 the deaths in the province of Valencia alone amounted to 25,512, and those familiar with the sanitary condition of the city of Valencia are not surprised at this fatality. The voyage across the ocean is sufficiently long to cause the poison to develop itself in any passenger before reaching our shores, and the cargoes can easily be thoroughly disinfected. Still it is quite possible that the infection may be carried in fomites in the clothing and escape detection at the quarantines.

Should it break out, the measures for the prevention of its spread are of two sorts: public, and private or personal; and with reasonable attention to these there need be no alarm of a wide spread epidemic.

Of public measures, the most important are to attend to the drinking water—wells or other public supply. The last great cholera epidemic in London, Eng., which destroyed 6,000 human lives, was due to the pollution of the East London supply from the River Lee by one family located in one house. The only real safety after an outbreak is to have all drinking water well boiled just before it is used. The milk and food supply should be well looked after too and the most scrupulous cleanliness en-

joined everywhere. But upon individual health, probably, after all, more than upon anything else, will depend the extent to which the cholera would develop and spread should it reach Canada. If the bodily fluids be pure, free from worn out waste substances of every sort, the germs of the disease will not be likely to develop and multiply in the body should they be taken into it in any way. It is therefore of the first importance that each and every individual attend well to the bodily condition; keeping all parts in good working order. Perfectly good living in all respects will usually secure immunity from the development of the infection within the body. One chief cause of waste impurities in the body is over-eating—eating more than the nutrient organs can digest, assimilate and dispose of—more than is needed for the due performance of the bodily functions; while excesses of all sorts weaken the nutrient functions, over-tax the excretory organs and render the organism less able to throw off the waste of the body or other impurities. The United States Consul at Genoa, a year or two ago, stated that the Sunday excesses among the aborning classes there proved a powerful feeder of the epidemic. The strictest temperance in all things is therefore of the first importance.

With a wisely judicious moderation in eating, regularly, plain, digestible but nutritious, pure, sound, well cooked foods, thoroughly masticated, and the careful avoidance of all foods not absolutely fresh and pure; careful attention to the condition of the skin and bowels (by bathing and the use of flannel underclothing), with regular habits as to exercise and sleep, and a tranquil fearless mental condition, no one need have any fear of the Cholera.

## ON THE PREVENTION OF SUMMER DIARRHŒA OF INFANTS.

**I**N preventing summer diarrhœa in young infants there are practically two special points to attend to: First, absolute cleanliness in relation to the food, bottles and other vessels used in preparing the food, &c., with the free employment of heat, in the form of hot water and steam, for sterilization; and, second, to avoid over-feeding. The greatest danger is from hand or bottle feeding, and as pointed out in this JOURNAL last month, milk rapidly deteriorates in hot weather and becomes actually poisonous to the delicate stomach of the baby. When it cannot be fed while yet quite fresh, direct from the cow, after proper dilution—as the mother's milk is taken direct from the breast, it should be boiled and kept at nearly the boiling temperature for half an hour, or steamed, as in an ordinary cooking steamer, for a like period of time. Any so sterilized and not immediately fed, may be kept in a cool place in one or more bottles stoppered with pledgets of cotton. Six or eight small bottles, for the day's feeding, may be thus prepared every morning. We repeat, use boiling water or steam, or both, freely and often on all the vessels; look well to the inside of the bottles and nipples, turning these often, and avoid rubber tubes.

Over-feeding is a constant cause of diarrhœa. One of the most distinguished physicians of the last generation, Dr. James Jackson, of Boston, wrote, in his published Letters to a Young Physician, that a certain intestinal ailment of infants had often puzzled him in the first years of his practice. It was characterized by the occurrence of green and unhealthy frequent stools, showing imperfect digestion. After observing a considerable number of infants that had such evacuations, and learning the mode and frequency of their feeding, the truth gradually dawned upon him that the unhealthy stools resulted from over-feeding. By diminishing the amount of food given at each feeding, and lengthening the intervals between the feedings, these infants

were soon cured, when medicines had failed to give relief.

In a late number of the Dietetic Gazette, Dr. J. Lewis Smith, of New York, said:—In December last, I attended an infant of four months that had been very fretful and with insufficient sleep for weeks. The wet-nurse who had charge of it had apparently the proper requisites, such as health, youth, robustness, and well-developed breasts, which seemed to furnish sufficient milk, and of good quality. But the infant, though fairly nourished, had so little sleep and was so fretful, crying so much during the night, as well as day, that the whole household were deprived of the needed rest. The nature of the baby's ailment was soon detected, for its stools presented the appearance indicative of indigestion and intestinal catarrh. They contained numerous whitish masses of casein, mixed with mucus and thin fecal matter. Pepsin preparations, with bismuth, were at first employed, without any marked result, but improvement began at once when the infant, instead of being frequently applied to the breast, as had been the practice, was allowed to take it only every third hour, and was fed nothing in the interval. It had been simply over-fed.

Some infants, Dr. Smith continued, if over-fed, regurgitate the surplus food, but others do not, and the part which is not digested undergoes fermentation, and acts as an irritant to the stomach and intestines. Acids, as the butyric and lactic, and gases, which distend the stomach and intestines and cause colicky pains, form from the fermentation. An infant thus suffering from over-taxed digestion, and from the presence of irritating acids and gases in the stomach and intestines, is usually fretful, and its sleep is disturbed and broken. The cause of its restlessness is often misunderstood by the mother, who thinks that it may be due to insufficient nutriment, and, accordingly, it is applied more frequently to the breast, or if bottle-fed, it is given the bottle more frequently.

## THE OVER-WORKING OF BOYS AND GIRLS.

IT is generally conceded that on the whole in civilized countries there is too much actual work and too little time given to the CULTIVATION of the mental and physical faculties. We propose to consider this subject now only as it relates to the young, of both sexes—girls and boys. There is a vast amount of discomfort, lifelong misery and disease caused by physically over-working the young during the growing period. Not only is this the case in factories and large manufacturing establishments, but in private homes, and in town and country. Parents often thoughtlessly—ignorantly, give their children tasks of physical labor out of all proportion to their tender years. We could call to mind many instances of stunted, defective bodily development from over work, both on the farm and in mechanical trades, and know of a number of poor little men and women, especially the former, still young yet prematurely old, who never had a real childhood of play, but were worked—overworked—right on from their eighth or tenth year of life. The children of large, vigorous parents often grow only into small, ill-developed creatures from overwork alone. But few parents would thus afflict their little ones if they knew or could foresee the probable serious consequences. The work may be too severe, or, being much less severe, be too long continued. No more serious error can be made than to work a young child continuously all day at even light work. The depressing mental effect, too, is sad to contemplate. A writer in a medical exchange says: "A man of excellent parts was wont to say to his son, a lad of eight years, 'Now I am going away, and I want you to work at this job steadily till I return, to-morrow night. You need not hurry, but you must keep right at it. I want you to learn to work like a man, to work alone, and stick to it all day. I don't want a boy of mine to grow up to be shiftless.' Misguided father! He loved his boy, and meant to be kind to him; but he could not have taken a surer way to make him hate work,

as well as to do him actual physical injury. "The deluded parent, a man of prodigious strength, supposed he was taking a course to make his delicate boy strong and hardy! But the physical hardship was not the severest thing to be borne. If the father could have experienced for one hour the feelings of loneliness, of despair, that came over that lad as he realized the utter impossibility of fulfilling his father's expectations, he would have yearned with pity, if he had not been cured of his preposterous theory."

We trust this may be read and thought over seriously by thousands of parents who, although they may actually need, or think they do, the help of their young sons and daughters, will pause and compare their own strength with that of their children, and work them only in accordance with their years. Parents should remember, too, that a large part of the strength of the growing organism is demanded for growth and development, and must not be all expended in work. How often we hear it said by a proud parent of perhaps but a half grown lad, "Oh, he can do as much work as a man." But, parents, remember, if he does this continuously before he becomes a fully mature man, he does it at the expense of his future welfare—his future vigor, health and happiness. Spare the children then from real work as much as possible. Childhood is the time for play.

---

OLD PLATED WARE, especially forks and spoons, become, through long use, almost void of silver covering, and many of these goods are made of such metal that the acids of foods act upon it, dissolving it and giving rise to actual poisons, such as salts of copper or lead, in the food—poisons, indeed, which are highly injurious to the health, but acting in a most insidious manner.

SILVER PLATING can now be done at so reasonable a price that families would therefore promote their health, in avoiding the risks of poisoning, by having all old plated or "silver" ware re-plated occasionally, as the best silver plating will, of course, wear off in time.

## RESISTANCE TO AND RECOVERY FROM DISEASE.

THE following is from an address by Jonathan Wright, M.D., of Brooklyn N.Y., as published in the N.Y. Medical Journal:—The question of immunity and recovery from disease has occupied the minds of medical men ever since the dawn of history. In one form or another it has been recognized that there are two opposing forces at work in any case of disease—the malignant tendency of the malady, and the resisting power of the victim's organism. Even the most savage and uncivilized races seem to have a glimmer of this clinical fact.

The microbial pathology seemed to define and materialize the morbid power of various contagious or infectious diseases, but in the hot pursuit of pathogenic bacterium men without scientific training and, still worse, those without mental equipoise seized upon the new discovery as an excuse to rush before the medical world with all manner of fantastic deductions. With no consideration of long-established and well-known clinical facts, they attempted to explain everything and anything in the light of bacterial science. If they could not make their theories conform to the clinical facts, so much the worse for the clinical facts and for the clinicians.

Practically the science of modern bacteriology began the heyday of its existence, the vigor of its youth, with Koch's great discovery. . . . The *Bacillus tuberculosis*, the *Staphylococcus pyogenes*, the anthrax bacillus, and their congeners form a link, and an important link, in the chain of our knowledge. From actual research we know that sources of infection are everywhere. The germs of phthisis, diphtheria, typhoid fever, septicæmia, lurk everywhere in the ordinary pursuits of life. We carry them about with us on our skins and mucous membranes. They float in the air we breathe, they swim in the water we drink, they burrow in the food we eat, but the number of their victims bears no proportion to the number exposed to their attacks.

It has been proved that the intact mucous membrane and the skin offer great but not perfect resistance to the inroads of bacteria.

This of course is a great protective factor in the resistance of the animal organism. Abrasions of the skin, desquamations of and solutions of continuity in the epithelium lining, the mucous membranes of the respiratory and digestive tracts, are too numerous and frequent for them to act as an efficient guard against the almost omnipresent enemy. The movements of the cilia on the ciliated epithelium (lining mucous membranes), the acid of the gastric juice, the various lymphatic glands and internal organs proved to some extent to act as a bacterial filter for the general circulation, but all these are insufficient to explain the relative immunity of the majority of the animal kingdom from various infectious diseases. Practically, infection is not carried and disease is not caused by injecting countless myriads of pathogenic bacteria under a man's skin or into his veins. It has been calculated that it takes a billion staphylococci to kill a rabbit with septicæmia. In other words a healthy rabbit's organism is able to cope successfully with a smaller number. Another experimenter has calculated that it takes about 820 tubercle bacilli to kill a guinea-pig, which is the most susceptible to tuberculosis of any animal with which we are acquainted. What man's resistance to the inroads of disease, when in a condition of health, is, we of course do not know with anything like this exactness, but we are almost certain of the fact that in the vast majority of cases no such dose as that suggested in the figures above ever finds its way into the body of any man at one time.

From circumstantial evidence we have every reason to believe that many a tubercle bacillus finds its way into our lungs without producing tuberculosis. From our experience at the post-mortem table, we know that many a one takes a start in life there, produces a large and interesting family, but is finally exterminated root and branch, and leaves behind him only the cicatricial or calcareous marks of his former habitation. We don't all die of septicæmia from a boil, or

of typhoid fever when we have it. We are even occasionally able to cope with the onslaught of the deadly anthrax.

Hardly less striking is the clinical fact that some individuals seem incapable of contracting the contagious diseases with which their companions under similar circumstances are infected. If we find difference in individual susceptibility to certain diseases, the difference becomes more marked as we pass in animal life from the individual to species. White mice are absolutely immune from glanders, the rat from anthrax.

Facts such as these evolved from clinical experience and careful experimental research, point irresistibly to the assumption that there is some guardian influence or influences which as a rule annihilate the occasionally deadly microbes. There is something definite of a chemical or biological nature which makes up the entity to which the good old phrase—*vis medicatrix naturæ*—refers. The cause of disease, as we observe it clinically, is complex. We note not only the exciting cause, as for example, a bacillus; but the predisposing cause, as, for instance, a generally low vital condition of the system. There then follows the inference that this protecting and healing influence must vary in degree.

The old question is still asked: "Why does Mr. Jones die of phthisis? Why does Mr. Smith recover? Why does Mr. Brown escape it altogether?" The lecture-room bacteriologist gives back the ringing answer: "Mr. Jones' lungs were a good culture medium, and Mr. Smith's a poor one, while Mr. Brown's afforded no sustenance to the bacillus at all." All this we heard *ad nauseam* a generation or two ago, only couched in different language. "Mr. Jones had a scrofulous diathesis, Mr. Smith had a stronger constitution, while as for Mr. Brown, he never had any consumption in his family at all." Like many such an answer, it only satisfies the novice long enough for him to parse the sentence.

We know that there are certain bacteria—such as anthrax—which will not grow on the frog's body partly on account of the low temperature; some which cannot grow because of the presence of certain other

conditions with which we are familiar. Some will not grow when exposed to the air. Some need the air. Some will not grow on nutrient gelatin. Some, and in fact the majority, need an alkaline or neutral culture medium. Some will not grow outside of the animal body at all. But this knowledge helps us very little, although it gives us a clew to the direction in which we are to work. We know that environment has a very great influence upon the resisting and recuperative powers. There is an instance on record where fourteen clerks out of the twenty-two employed in a small office with poor light, bad ventilation, and worse pay, died of phthisis in a very short time after the first case occurred. We send our phthisis cases away to the woods, or to high altitudes—nay, even the change from the city to the country is almost certainly followed by some benefit. If you inculcate rabbits with tuberculosis and coop them up in a dark cellar, they will, as a rule die, while, when they are turned out upon an island and given the benefit of fresh air, light, exercise and proper food, they often recover from their tuberculosis and the points of inoculation become encapsulated and calcareous.

It has been shown that by injecting glucose into the blood of rabbits it is possible to reduce greatly the number of staphylococci necessary to kill the healthy animal with septicæmia. It has been possible to render white mice, otherwise immune, susceptible to glanders by feeding them on phloridzin, which causes sugar to appear in the urine. We have a clinical illustration of the effect of sugar in the system in the readiness with which diabetics contract other disease—noticeably septicæmia—yet the surgeons tell us that by the most rigid and careful antiseptics it is possible to make wounds heal as readily in diabetics as in healthy persons.

Closely connected with the natural resistance to and recovery from disease is the question of acquired immunity. Since the rise of the bacterial pathology the work expended upon it has been great and varied. We are still no further on the road to the



solution of the problem of its *modus operandi* than we were in the time of Jenner. Before his time inoculations had been successfully practiced. By a method of dieting the system was brought into such condition that when exposed to the contagion of small-pox the patient acquired the disease in its milder form of varioloid and subsequently became relatively immune. It is reasonable to assume that the change wrought in the system by Jenner's vaccine and by the old inoculation methods were analagous to what we observe in the effects wrought on the system by the various methods of protecting the animal organism against bacterial diseases. It is a singular and striking fact that whereas many diseases of the lower animals have

been successfully guarded against by inoculation procedures, it is only small-pox and possibly rabies in man in which corresponding endeavors have been successful. And it is in these two contagious diseases, together with measles and scarlatina, that the causative microbe is as yet conspicuous by his absence.

Phthisis, diphtheria, erysipelas, septicæmia and their congeners prey upon defenceless mankind and count yearly their victims by hundreds of thousands, while over the diseases of his domestic animals—chicken cholera, hog cholera, anthrax, pleuropneumonia—man has become to some extent the master, being more solicitous for his wealth than for his health.

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#### WHAT IS MESMERISM?

IN the Illustrated News of the World for July 5th inst., Sir Andrew Wilson gives another of his admirable series of "Science Jottings," of which the following is an abstract:

The air of late has been full of discussions respecting mesmerism and its use in medical practice—or, what is much the same thing, its applicability to the wants of social life when that life has to be ministered to for the relief of the ailments which beset it. In these latter days, mesmerism is no longer known under that name. It is now designated "hypnotism," and, as such, figures boldly both in medical journals and in lay newspapers. Some time ago I became personally interested in the subject, and consented, at the request of my friend Dr. Bramwell, of Goole, to initiate a discussion on the question of mesmerism in medicine in *Health*. That symposium has proved to be of great interest; because a number of eminent medical men have contributed to it, and because of the variation in opinion which the symposium has been the means of eliciting. Now that Sir Andrew Clark and others have delivered their opinion, we are certainly free to discuss the matter everywhere, for it is clear that the question whether, as a nation, we are to permit our-

selves to be hypnotised will only be thoroughly settled by our first of all understanding what hypnotism is, and what it professes to do in the way of curing disease.

I made the remark in these pages on May 3rd that "It is impossible to hypnotise everyone; and as far as my experience of it goes, only in the case of the intellectually sensitive—shall I add weak?—can hypnotism hope to secure its most characteristic effects." Dr. Bramwell and Mr. Lloyd Best, referring in the *New Review* (for the present month) to these words, state that Beaunis, a Continental authority, is "of the opinion that everyone is more or less susceptible to the hypnotic influence." I maintain fearlessly that both Dr. Bramwell and Beaunis are in error. For, personally, although I have been many times tried by different hypnotisers, I have not been in the least degree effected. Again, I know others who are in a similiar position to myself. They have not been mesmerised after repeated trials.

But "What is this hypnotism?" is a query the public are beginning to ask, and to which an answer must be afforded. I shall attempt a reply based on general grounds, such as, I trust, may be "understood of the people." A human brain is

composed of a series of nerve-centres, or parts regulating and controlling actions of more or less well-defined nature. It is not one organ but a collection of organs, all working together, in the healthy organism, for the regulation of the life mental and the life physical as well. This much is certain and sure. While there is harmonious working, however, between the brain centres, there exists also a certain amount of independence among them. Such independence is inseparable from the nature of the multifarious duties the brain-centres discharge. They may be compared to the sub-departments in a great Government affair—like the post office, for example—wherein each sub-division, while owning a central and connecting authority, exercises, on its own behalf, a fair share of responsibility for the discharge of its own duties. Now, roughly, yet correctly speaking, the brain shows a division into what we may term intellectual centres and lower or automatic ones. The former, located chiefly, or wholly, in the forehead lobes of the brain, deal with the highest affairs of the mental state. They exercise the will, they are the seats of intellectual operations, and they constitute by their collective working “the conscious Ego” which is the essence of our responsible individuality. The lower or automatic centres, on the other hand, as their name implies, are in the position of self-acting machines. They control actions and operations which lie outside the will, and which are not (necessarily at least) associated with our consciousness. Reading and writing and walking are each and all acts which are automatically regulated. We have to acquire them, it is true, but, once acquired they are ever afterwards performed without thought. Over such acts, then, the lower brain-centres preside. I might quote the heart’s action, the regulation of the blood-vessels, swallowing, and the movements of the stomach in digestion, as additional illustrations of automatic acts. These lower centres of ours save us a vast deal of trouble and worry. They leave the intellect free to deal with deeper problems than are involved

in the mere acts of living and being; and when we come to think of it we see that a good three-fourths of our lives are really composed of actions which are performed utterly without thinking, and which are all the better performed, in truth, because we have not to think about them at all.

In sleep-walking we see how the lower centres of the brain can assume temporary command of the body, how they can rouse the sleeper from his bed, and guide and direct his movements unerringly in the majority of cases. Now, mesmerism or hypnotism, is an analogous condition to somnambulism. I take it that in the hypnotic state, however induced, there is essentially the abolition of consciousness and will, by the repression for the time being of the intellectual centres. It is useless and needless to say *how* this occurs; it is sufficient to say it does occur. In one way or another the hypnotiser succeeds in abolishing the intellectuality of his subject. The lower centres are stimulated and come to the front. Automatic life replaces the conscious existence; and the individual is, temporarily, as clay in the hands of the potter: he is made to think and act at the behest and command of the individual or individuals who have succeeded in reducing him to the level of a mere machine. This is the essence of hypnotism. Sir Andrew Clark put the matter in other words when he said that the liability of any one to be mesmerised stood in inverse ratio to their intellectual development. If this means anything at all it, implies exactly what I said in these pages in May, that it is the intellectually sensitive (or weak) who are the hypnotiser’s best subjects.

If Dr. Bramwell or any other hypnotiser can persuade certain people that they are not ill, that pain has left them, and that they must be made unconscious while being operated upon, I have no concern whatever with his procedure. All I maintain is, that he will not, and cannot succeed with people having a fair or complete share of volition and intellectual force. Nor do I envy those who can be “mesmerised.”

## NOTES FROM THE WORK OF THE RECENT NASHVILLE MEETING

OF DELEGATES TO THE NATIONAL CONFERENCE OF STATE BOARDS OF HEALTH AND SECTION ON STATE MEDICINE OF THE AMERICAN MEDICAL ASSOCIATION.

AT the above-named Nashville, Tenn., public health conference, May 19 to 23, eighteen States and the Province of Ontario were represented. An early proposition which was submitted to the Conference for consideration and discussion, was the following:

“By what means can a proper comprehension of the principles and practice of hygiene be most effectually promoted?”

There was a lengthy discussion on this by many of the leading delegates. All agreed to the value of annual reports for historical purposes, but as a medium of communication with the people, the preponderance of opinion was that such reports were of secondary importance. Sanitary tracts on municipal, domiciliary and personal hygiene; circulars on the prevention and restriction of cholera, small-pox, scarlet fever, diphtheria and other communicable diseases; a health bulletin, in which shall appear the mortality and morbidity statistics each month of the towns and counties, and meteorological data, together with short editorials or selected articles upon practical health questions; regularly, judiciously and systematically distributed had been found to be a valuable means of interesting and educating the public. The holding of sanitary conventions in various localities was, by those who had given them trial, also pronounced an excellent mean of developing popular interest upon the subject. The value of the press in this connection was emphasized and the suggestion offered that a serious effort be made to induce the leading dailies of the large centres of population to establish a sanitary editorship which should be charged with the consideration of all questions affecting the public health as is now the commercial editor with commercial matters; the society editor with society matters, etc.

Another subject for consideration was: “What steps should the United States Government take to prevent the introduction of

leprosy into this country?” A committee of three appointed at a previous meeting on the general subject of leprosy, and the prevention of its introduction into America, reported on this.

They held that leprosy is contagious, and declared that the dictum of the Royal College of Physicians and Surgeons of Great Britain to the opposite effect was heresy. When this was promulgated all precautions were thrown to the winds, and in forty years the lepers in British India increased from 128,000 to 250,000. The Government of Norway, on the other hand, have added new restrictions to the laws of segregation in force there, and in twenty-three years the number of lepers was reduced from 2,863 to 1,717, and where there were 242 new cases in 1858, there were only 29 in 1889, indicating the possibility of a complete extinction. The doctrine of heredity was discredited.

A review was made of the whole world, showing that leprosy exists in every country, and is steadily increasing in numbers. The condition of Cuba was especially threatening to America. Lepers can be found there at every turn; they are employed in every business, and, no doubt, many of the cigars shipped from there are rolled by leprous hands. Leprosy is cosmopolitan; it spares no age, it respects no race. Not half a dozen physicians in the United States, it was said, would know a case of leprosy in its first stages, and the Government should send men to Havana to study the disease.

The following were the conclusions as set forth in the majority report,—of two of the committee:—“Two courses are open to us. First, the do-nothing policy which has prevailed until nearly the present time. The result of this will be that in fifty years there will be lepers in every hamlet, and leper houses crowded with their mutilated victims in every city; second, the policy of absolute and implacable segregation in the case of those who are already fairly domiciled in

the country, the prohibition of marriage to all lepers, and the prohibition to all uninfected persons of the inhabiting of infected houses, the policy of absolute and implacable exclusion.

A minority report, by Dr. Hoegh, who was a native of Norway, and had made a thorough study of the disease in both countries, was to the following effect: He held the opinion that the danger of contagion was very much exaggerated in the majority report, and that we shall, in all probability, be able to exterminate the disease in the United States without having recourse to such measures as are unnecessarily severe, and which disregard the ordinary rights of the diseased individuals. The Government of Norway had provided for the patient to live in his own home when this was approved by local officers under the condition of using a separate room, clothing and utensils. This was extensively practised, and the marked diminution of leprosy in Norway was due, he thought, to an improvement in the habits of life as much as to strict segregation. He thought the present immigration restriction of the United States Government sufficient, and recommended that patients already in America should not be allowed to go into public places, travel from home or share the room with others, and that their

families should be inspected at stated intervals to make sure the disease was not spreading. The CANADA HEALTH JOURNAL is rather in accord with this report.

The discussion was generally participated in, and a motion in substance finally prevailed that for the present the action taken by the United States Government in the premises was sufficient.

Another subject considered was: "To what extent is it necessary to moisten the air of rooms at the time sulphur is burned for the purpose of disinfection after the occurrence of diphtheria, scarlet fever and small-pox." The preponderance of opinion was in favor of using moisture in connection with burning sulphur for purposes of disinfection. Dr. H. B. Baker, of Michigan, stated that from observation made by fifteen hundred health officers in his State during the years 1886-7-8 in outbreaks of diphtheria and small-pox where disinfection and isolation were employed there were only one-fifth the number of resulting cases, and one-fifth the number of deaths that there were in those local epidemics where these methods were not employed.

A strong resolution was passed urging upon Governments to pass laws for the preservation and planting of forests.

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#### MISCELLANEOUS NOTES AND EXTRACTS.

##### THE DISEASE GERMS IN THE SOIL.

Pathogenic germs evidently exist in the soil. The bacilli of tetanus, typhus and cholera have been observed, and it is probable that the bacillus of tuberculosis, the pneumo-coccus, will be found.

The superficial strata of the earth are extremely rich in pathogenic germs; at a certain depth there is a limit beyond which the number of germs rapidly diminishes until they cease altogether.

In the deep strata of the bacilliferous zone pathogenic species do not exist. Grancher and Deschamps have observed the arrest of the typhus bacillus at a depth

of 50 centimeters. In the cultivated superficial strata there are fewer micrococci than bacilli. The bacilli exist in the soil chiefly as spores. Under this form they best resist destructive agents and may remain latent for years retaining their virulence.

It is probable that the pathogenic bacilli germinate in the soil.

The cholera bacilli form numerous colonies at a depth of 3 metres during the months from August to October; from April to June at a depth of two metres there is no development, while at a depth of 1.50 metres the bacillus vegetates. At

least 2 per cent. of humidity is necessary for the development of the germs. Soil rich in organic material is most favorable to this development.

Causes of death of the pathogenic germs exist in the soil. The principal cause is exsiccation. Koch and Duclaux have demonstrated that this is especially hurtful to the micrococci, and here, according to Koch, is the explanation of the fact that micrococci are relatively rare on the superficies of the soil. The cholera bacillus dies rapidly under exsiccations. Netter fixes three weeks as the extreme limit at which the exsiccated pneumo-coccus preserves its virulence.

The two most potent causes of destruction which the microbes encounter are the saprophytic bacilli and solar light.

The saprophytic bacilli are in continual strife with the pathogenic microbes and have generally the advantage. The bacillus of tetanus is exceptional and may develop favorably in the presence of other species.

Solar light is injurious to very many bacilli. According to Duclaux it is the most universal means of sanitation, and the most economical and potent to which public or private hygiene can have recourse.

The turning up of the soil liberates pathogenic germs, but when the soil is not disturbed for a long time a colossal germination frequently goes on. Exhumation frees the bacteria long latent in the soil; hence the epidemics that follow the turning up of the ground.

Pathogenic germs leave the earth in many ways to attack men and animals. The soil which adheres to the body, to the feet of animals, and that which is carried by insects disseminates pathogenic germs. Currents of air transport superficial dust and so propagate the spores which resist exsiccation. Water also carries germs.

Ordinarily subterranean waters are on a level with the bacteriological zone. Sometimes this zone is exposed by fissures or by openings made in the earth. The walls of a well are a prolongation of the superficies and are favorable to the life of the germs.

#### BISMARCK'S HYGIENIC HABITS.

A correspondent of a London paper gives the following on the great ex-Chancellor's diet and its results: "At luncheon I observed that he drank nothing with his food, and asked him whether 'eating dry' were a habit of his own choice, or an article in the dietetic code drawn up for him by his famous 'Liebartz,' Dr. Schweningen. 'The latter,' he replied. 'I am only allowed to drink thrice a day—a quarter of an hour after each meal, and each time not more than half a bottle of red sparkling

Moselle, of a very light and dry character. Burgundy and beer, both of which I am extremely fond of, are strictly forbidden to me; so are all the strong Rhenish and Spanish wines, and even claret! For some years past I have been a total abstainer from all these generous liquors, much to the advantage of my health and 'condition,' in the sporting sense of the word. Formerly I used to weigh over seventeen stone. By observing this regimen I brought myself down to under fourteen, and without any loss of strength—indeed, with gain. My normal weight is now one hundred and eighty-five pounds. I am weighed once every day by my doctor's orders, and any excess of that figure I at once set to work to get rid of, by exercise and special regimen. I ride a good deal, as well as walk. Cigar smoking I have given up altogether, of course under advice. It is debilitating and bad for the nerves. An inveterate smoker, such as I used to be, probably gets through a hundred thousand cigars in his life if he reaches a fair average age. But he would live longer and feel better all his time if he did without them. At the age of seventy-five Prince Bismarck is as upright as a dart and as firm of foot as many a strong man forty years his junior. His complexion, which used to be sallow when I first knew him, is clear and ruddy; his eyes sparkle with all their old fire and brightness; his voice is mellow and sonorous; his heavy mustache and eyebrows are no whit grayer than they were twenty years ago. He looks younger than his age by a decade at the very least."

This is, doubtless, owing to the change in his habits within a few recent years.

PROFITS OF HEALTH BOARDS.—In the proceedings of the Vicksburg Sanitary Convention, recently published, Dr. Henry B. Baker, Secretary of the Michigan State Board of Health, which shows the practical benefit of boards of health. The following is a summary of the official statistics: "The record of the great saving of human life and health in Michigan in recent years is one to which, it seems to me, the State and local boards of health in Michigan, can justly 'point with pride.' It is a record of saving over one hundred lives a year from small-pox, four hundred lives per year saved from death by scarlet fever, and nearly six hundred lives per year saved from death by diphtheria—an aggregate of eleven hundred lives per year, or three lives per day saved from these three diseases! This is a record which we ask to have examined, and which we are willing to have compared with that of the man who 'made two blades of grass grow where only one grew before.'"

**FAILURES OF PROHIBITION.**—Dr. William A. Hammond, in the *Popular Science Monthly* for May, says: Nowhere has the inefficacy of sumptuary laws been more thoroughly demonstrated than in Rome. There the dress, the food, the furniture of the houses, were attempted to be regulated by law after law, which were either openly or secretly disobeyed, and which eventually disappeared from the statute-books. The cost of entertainments was limited: the number of guests a person might have at his house was restricted. No woman was allowed to have more than half an ounce of gold, or to wear a dress of more than one color, or to ride in a carriage. In France, during the Celtic period, a law was passed that women should drink water only. In 1188 or thereabout no person was allowed to wear garments of vair, gray, zibeline, or scarlet color. No laced or slashed garments were allowed, and no one could have more than two courses at meals. In 1328 scarlet was only permitted to be worn by princes, knights, and women of high rank. The use of silver plate was prohibited except to certain high dignitaries: and women were frequently sent to prison in forties, fifties, and sixties at a time for wearing clothes above their rank. Even as late as the seventeenth century gold, as an ornament was prohibited.

**BACTERIUM.**—According to the Sanitary Record, Prof De Bary, of Strasburg, an authority in these matters, considers that amongst human diseases we are now pretty certain about the exact microbes which are the cause of anthrax, of relapsing fever, of tuberculosis, of gonorrhoea, and of Asiatic cholera. We know also something of the particular bacteria concerned in the infection of wounds, or pyæmia, as it was formerly called. There is one variety of erysipelas which has been definitely traced to a bacterium, one of the chain forming *Streptococci*. About Friedländer's micrococcus of pneumonia, as also about Lustgarten's bacillus of syphilis, there is still room for investigation; but the bacillus of leprosy has been definitely ascertained, as have also several bacteria causing diseases in the lower animals. The word bacterium, it may perhaps be well to state here, is used for the whole tribe of these minute organisms. A bacillus, a spirillum, or a streptococcus is still a bacterium, and the particular germ is distinguished by the second or specific name, as *Bacillus anthracis*, *Streptococcus albus*, &c.

EDITORIAL NOTES.

THAT CLEANLINESS is a virtue next to that of Godliness science is constantly making clearer and clearer. The improved health, vigor and intellectuality and the reduced mortality among soldiers and pupils in the public schools in Europe from the system introduced for frequent and regular bathing by all the soldiers and pupils is now a fact well known. Since the use of the machinery for cheap washing with tepid water the death rate of the German army has been brought down to 5 per 1,000, and it is proved that they have been largely exempted from the recent epidemic, whilst the death-rate in the home army of Great Britain is about 8 in a 1,000. The cost of washing 100 men with tepid water, in Germany, is about 6d.; an advance has been made in England by Mr. W. Bartholomew, who with his improved jets, up as well as down, can more effectually wash the same number of men for probably not more than 4½d. In France they are beginning to try this washing with tepid water on soldiers, and it is shown that it may be done in 5 minutes of time as against 20 in the bath, and with 5 gallons of water as against 60 and 70 gallons in the bath. This is accomplished at the cost of a centime per head, soap and towel included.

FURTHER EVIDENCE of the value of cleanliness. In the twentieth and last annual report of the Massachusetts State Board of Health is given the results of some investigations into "The Number and Distribution of Micro-organisms in the Air of the Boston City Hospital, with some Carbonic Acid Determinations," by Mr. G. R. Tucker. He found that the air of the officers' rooms yielded an average of 2 bacteria in every 10 litres of air; of the nurses' rooms, 9.4: of the domestics' bedrooms, 20.3; of the laundry women's (the lowest class of domestics) bedrooms, 36.7. The number of bacteria present in the air of any apartment was apparently dependent upon the personal cleanliness of its occupants.

IN THE INVESTIGATIONS referred to above Mr. Tucker found, as was to be anticipated, that the prime factor in determining the number of micro-organisms in any given quantity of air was the degree of commotion, vibration, or stirring up of the dust, in progress at any given time; although, curiously enough, this appeared to have little effect in determining the number

of moulds at any time present in the air. Contrary to his expectations he found that the air of the infectious wards (scarlet fever and diphtheria) showed a freedom from micro-organisms not to be found in any other part of the hospital; this he very naturally attributes to the more modern construction and more efficient ventilation of these wards.

WHY IS IT that the mortality among members of the House of Commons of this Dominion has been, for several years, at the rate of over 21 per 1,000 per annum, while in the English army at home the death-rate is only 8 per 1,000, and in the German army 5 per 1,000 per annum? Can any one give a reason for this, or suggest causes that will be entertainable? Certainly this is a subject worthy of serious consideration. But, like the terrible mortality among young infants in some of our cities during the hot season, it seems to attract but little notice. When deaths occur more lives roll in to fill up the vacant places. Yet all are anxious for a large increase in the population of the Dominion.

CERTAIN persons interested in alum baking powders have long contended that these powders were not injurious. Prof. Mallett, of the University of Virginia, has been making a series of experiments, some of which were upon himself, in regard to the alum powders. While on occasions, particularly with the smallest doses, there was no observable effect, the general tenor of the experiments seemed to establish beyond doubt on his part, that the ingestion of aluminium compounds retarded gastric digestion. There was no pain, nor symptom of gastric or intestinal irritation, but the well known sensation of weight or oppression due to indigestion, and lasting two to three hours. He regards it as a fair conclusion "that not only alum, but the residues which its baking powder leaves in bread, cannot be viewed as harmless, but must be ranked as objectionable, and should be avoided when the object aimed at is the production of wholesome bread."

AT A RECENT meeting of the Chicago Master Plumbers' Association Mr. David Whiteford read a valuable paper relative to licensing plumbers (in the Sanitary News), and in conclusion said: In reviewing the thoughts which have been presented, there grow out of them several essential points for the training of men to carry on the business of a plumber. First, that the apprentice to the trade must be required to attend one year in the daytime, or its equivalent

at night, during the term of the apprenticeship, a manual training-school where a special branch can be given covering the knotty points of the trade. Second, the registration and examination of journeymen plumbers under state law would correct two existing evils: (a) No apprentice at the trade should be examined and registered for journeyman until he has served his stated time; (b) The journeyman should not apply for a license to carry on the plumbing business until he is a registered journeyman in good standing. Third, state legislation and the unity of the craft, protecting and upholding the Board of Health, will go far toward weeding out and furnishing to the trade a class of competent master plumbers.

THE British Medical Journal seems to doubt the wisdom of closing schools during the prevalence of scarlet fever. It says: The closure of schools is at all times a measure of doubtful value for the limitation of scarlet fever, seeing that the children are sure to play together in the streets where they live. Sometimes the number of absentees is so great when scarlet fever is very prevalent, that the school naturally closes itself, but when the absentees are but a small proportion of the whole number of school children, it is doubtful whether in towns the risks or the spread of infection are diminished by preventing the children congregating at the schools.

THE FOLLOWING official statistics relating to tuberculous cattle at the public slaughter-house of Augsburg are of interest: During 1889, of 23,592 calves slaughtered, only one (an animal three weeks old) was found to be tuberculous. Of 13,679 head of older cattle, 612, or 4.4 per cent., were tuberculous. Of 8,537 oxen, 167, or 1.94 per cent., were tuberculous; while of 5,008 cows, 445, or 8.88 per cent., were affected with that disease. In 4 cases, or almost 1 per cent. of the cows, the udder was the seat of tuberculosis. In 67 of the 612 cases in which disease was discovered, the flesh was declared unfit for food on account of generalised tuberculosis and destroyed.

PROFESSOR MARK, on the instruction of the State Board of Health of Massachusetts, undertook a course of experiments in order to determine the methods by which trichinosis is usually spread amongst swine. He found that amongst hogs reared in the vicinity of Boston, and fed mainly on the offal of the city, no less than 12.86

per cent. were trichinous. He believes that the infection of the hog is caused by the consumption of uncooked trichinous meat contained in the city offal; hogs raised in other parts of the country were found to be not nearly so frequently infected.

DR. SUZOR, of the Island of Mauritius, has practised injections of the Brown-Sequard Elixir in certain cases of leprosy with the most gratifying results, the ulcers rapidly cicatrizing and the patients regaining appetite and strength. The same experimenter reports a case of malarial fever, occurring in a woman, in which one injection sufficed to arrest the daily paroxysms immediately and to remove permanently the feeling of languor and the jaundice from which the patient was suffering. As a result of his study of these various experiments and of his personal experience, Dr. Brown-Sequard is more firmly persuaded than ever of the value of his discovery, and that the injections exert a marked dynamogenic action upon the nervous centres, at least in a large number of cases.

THE ORILLIA Board of Health manifests a commendable determination to have the premises of the Grand Trunk Railway Company placed in a better sanitary condition. The Packet hopes that they will not relax their pressure upon the Company till the work is thoroughly done. There are many railway premises in Canada in a very unsanitary condition, which should engage the attention of local Boards of Health.

SEVERE malignant anthrax has now been cured by subcutaneous injections of carbolic acid as a bacillicide.

THE PUBLICATION in the German papers that the number of resident consumptives in San Remo and Mentone, in northern Italy, steadily on the increase, has greatly excited the natives of that region. The cause of this increase is stated to be the sojourn of consumptives to that country in search of health and the undoubted contagiousness of the disease. The people of southern California protest against that country being made the transient home of consumptives who spread the disease among the natives.

DR. S. WEIR MITCHELL, of Philadelphia, recently received from a woman-patient the singular present of a cord of white-oak wood, chopped down and sawed up by her own hands. He had recommended to her an active, outdoor life in the woods for nervous invalidism. She had followed his directions, with results of

which the cord of sawed wood was one of the evidences,

THE New York Medical Journal published the three remarkable lectures lately delivered by Dr. E. C. Seguin, of Providence, R.I., before the Medical Society of the University of Toronto.

THE Health Officer at Chicago refuses to accept heart failure as a cause of death, very much, it is said, to the indignation of the physicians there.

THE WHOLE civilized world, says an exchange, is ringing with the praises of Stanley. That which this intrepid explorer has done for a handful of his fellow-creatures, the sanitarian is doing for the whole of humanity:—exploring the hitherto "Dark Continent" of disease that he may rescue afflicted humanity from its slough of despondency and bring it out of its threatened bondage into the glorious happiness of a sanitary enlightenment.

THE Brooklyn meeting of the American Public Health Association was a financial success. The Local Committee has made its final report, which shows that the total amount of money collected to meet the expenses of the meeting was \$3,361.10, of which \$1,461 was paid by the exhibitors in the Health Exhibition for space. The total expenses were \$3,212. The Local Committee are to be congratulated.

AN ANALYSIS has been made of fifty different proprietary specifics for inebriety, and each was found to contain alcohol, varying in proportion from 6 to 47.5 per cent. Several of the preparations were advertised as "not an alcoholic beverage." In nineteen so called "opium cures" morphine was detected.

THE German Government has under consideration a proposed new law regulating the sale of poisons in the Empire.

ON THE INFLUENCE OF GASTRIC JUICE ON pathogenic germs the *Lancet* says: "Dr. Kurlow and Dr. Wagner, in a paper which they publish in the *Vruch*, describe some interesting experiments which they have made, from which they are led to the conclusion that constant or specific microbes do not exist in the stomach, and those which enter it, together with sputum, food, or other ingesta, are only accidental and temporary residents, and can not live in the normally acid contents of the stomach. Gastric juice is, according to the author's experiments, an exceedingly strong germicidal agent, and



when living bacilli get into the intestinal canal it is due to various conditions entirely independent of the gastric juice. When the latter is normal and in full activity, only the most prolific microbes—such as tubercle bacilli, the bacilli of anthrax, and perhaps the staphylococci—escape its destructive action: all others are destroyed in less than half an hour.

A FRENCH aural surgeon, M. Lannois, has been devoting some attention to the effect the constant use of the telephone has upon the human ear. In the *Annales des maladies de l'oreille* he reports that, having been called upon to attend three cases of ear disease occurring in persons who had been employed in telephone work, he was led to examine the ears of fourteen girls who were in the service of the central telephone office at Lyons, and from this examination he concludes: 1. That the constant use of the telephone seems to exert no bad effect upon sound ears, but that it is harmful for those which are already the subject of disease. 2. That these affections consist especially of an impairment of hearing from fatigue of the auditory attention (buzzing headache, vertigo, nervous excitability, and certain transient psychological disturbances). 3. That these effects are often of brief duration and disappear as the auditory apparatus becomes accustomed to its work, and that in all cases they cease when telephone work is abandoned.

RECENTLY Dr. Max Einhorn, of New York, has investigated the stomach-digestion of infants, using a small tube, with which he withdrew the contents or determined the emptiness of the stomach when a certain time had elapsed after the nursing. He ascertained that in the infant receiving human milk the stomach is empty in two hours after the nursing, and probably in one and a half hours. After feeding with equal parts of barley water and cow's milk, the stomach was practically empty at, or a little before, the close of the second hour. After feeding with milk and water, equal parts, the stomach was empty in about one and a half hours.

THE KOLA NUT has recently been attracting a good deal of attention in the public press. Europeans who have lived in Africa agree in ascribing to it wonderful sustaining properties during fatigue and abstinence from food. The so-called nut is in reality the seed of the cola *sterculia* acuminata, a tree over thirty feet

high growing in tropical Africa, each fruit of which contains from six to twelve seeds about the size of chestnuts. It has properties similar to coffee and cocoa. The chief active principles are caffeine, of which there is about 2½ per cent, theobromine 0.02 p.c., and tannin 1½ p.c., in addition to starch, cellulose, etc. It forms a large article of inland trade in Central and Northern Africa, the Soudan, Morocco, the Congo State, etc.

THE NATIVE African porters use it constantly as an infusion and chewed, and prize it highly; and as they are a class of men who can do very severe work on comparatively little food, their powers of endurance have been attributed by foreigners to the kola nut. The observations of Surgeon Firth on British soldiers show that it does not affect the output of nitrogen from the body, and that, taken continuously during times of exertion or fasting, it possesses a power of warding off the sense of hunger and fatigue. Its action in this regard and in alcoholic craving depends, doubtless, entirely on the caffeine it contains. It is one of the many sources from which the human race obtains the stimulating and refreshing effects of caffeine, and its introduction offers nothing specially new either in dietetics or therapeutics.

AT THE Biological Society, in Paris, M. Lapique stated recently that during ten months he travelled in the Vosges, taking kola nut every day. Last year he repeated the same experiments, taking caffeine. The results were the same, with the exception that smaller doses of caffeine must be taken.

IN SEA-SICKNESS Surgeon Chas. W. Hamilton recommends kola very highly. He has found that half to one drachm of the seed of the kola, chewed slowly, was followed in about forty minutes by complete cessation of the various symptoms of *mal de mer*; the depression, vomiting and giddiness disappear; the heart's action is regulated and strengthened, and a "confidence" is given in heavy weather that his cases never before experienced during the many years they have served in the Royal Navy, although they had tried the usual remedies prescribed. Its action seems to be in giving tone to the nervous system, proving a stimulant generally and locally. Some of our readers may soon be in a position to try this remedy in crossing the Atlantic, and, we trust, to learn that it may be a successful one in this most trying and common ailment.

IN Massachusetts, in 1889, seventeen outbreaks of smallpox were recorded, involving 32 persons, and attended by five deaths. Many of the cases arose in connection with rags in paper mills.

ORITHIA is in trouble about a water supply. The old asylum, according to a report by Mr. A. G. Robinson, C.E., as published in the Packet, cuts off by its sewage the source of what might be one supply, while the new asylum, cuts off in a like way their only hope in another direction. Complaint has been made to the Provincial Board of Health.

THE increase of insanity in Berlin has made it necessary that a new public lunatic asylum should be established. The building is to accommodate 1,000 patients. The city already maintains an asylum with about 1,200 inmates at Dalldorf Lager.

HABITUAL drunkards in Norway and Sweden are put in gaol and fed entirely on bread steeped in wine till they become sickened and are glad to live as total abstainers.

THE New York Medical Times says that soap is a perfect antidote to carbolic acid poisoning. It should be taken in strong solution immediately after the acid is taken.

KINNEY'S PATENT "Disinfecting Chamber Pail, or Toilet Jar and Improved Commode," manufactured by Thomas Macdonald & Co., 69 to 75 Sherbourne street, Toronto, is a very useful vessel indeed in any household. It is made of ornamented japanned iron, with a surface rim or seat of wood, and with a snugly fitting lid in which is a cavity for a disinfecting powder. It is, we believe, being largely used in hospitals as well as in private families.

MANY READERS of this journal will probably visit Ottawa this summer or autumn, and some it may be for the first time. We want all to receive a good impression of the capital. A good lodging place promotes a favorable impression. The Russell, "the Palace Hotel of Canada," we can recommend as hardly second to any hotel on the continent, and we know something of the best in such cities as New York, Chicago and Montreal. Those who want the best "living," and will at the "Russell" make this known, will, we think, be well satisfied.

THE Canadian Mutual Aid Association of Toronto has presented a very satisfactory report

for 1889. This Association has now been nine years doing business. Its membership is not far from 5,000, with only 44 deaths last year. It has nearly \$9,000,000 of insurance in force.

THE DAVIS & LAWRENCE CO., of Montreal, who are sole agents in Canada for Wyeth's admirable preparations, are offering Double Refined Norwegian Cod Liver Oil of a quality guaranteed to be second to none sold in the market, at the lowest possible price. They pay no profits to middle-men, and therefore are able to quote this fine Oil as low as other houses are quoting for inferior grades. Sold in lots of 2½, 5, 10 and 25 gallons.

CAREFULLY elaborated schemes of some importance are being worked out by committees of the National Health Society, for the systematic teaching of personal and domestic hygiene among the people.

THE SANITARIUM at Battle Creek, Mich., is being enlarged to the extent of between sixty and seventy more rooms, including over twenty handsome suites, all to be ready for occupation by August 1st. The managers propose to build a branch of their Sanitarium in Denver, Col.

THE FLAKE HOMINY manufactured by the Ireland National Food Company of Toronto, for sale by most of the principal grocers (Messrs. Bate & Co., Ottawa), is a most delicious breakfast food. The national foods of this company have acquired a well deserved national, and, we believe, international reputation. Their preparations of wheat, desiccated, etc., to which we have drawn attention on former occasions, are, we believe, the most digestible and nutritious cereal foods in the world's markets.

CANADA'S GREAT FAIR in Toronto, we would remind our medical readers especially, will be about at its best during the time of the annual meeting of the Canada Medical Association. It is stated that great efforts are being put forth to make the next Industrial Exhibition there eclipse all former ones. The prize list shows a large increase in the amount offered as premiums. We hope this great entertainment may assist in bringing a large number from all over the Dominion to the Association meeting, which, by the way, we may add, promises to be an unusually good one.

NOTES ON CURRENT LITERATURE.

**MOTHER'S HELP AND CHILD'S FRIEND** is the title of one of the best books for practical use in the household or for mothers which we have seen or probably which has yet come from the press. It is published by the author, Mrs. LeFavre, of Chicago (P.O. Box 555), who takes a most active and leading part in many social reforms in that city, and in Illinois. The volume is an attractive one of nearly 200 pages, and contains sections under such heads as "The Advent of a New Soul," "Moral Education," "Parental Authority," "The Art of Living," "Speak Gently," "Beauty," "Physical Culture," "Food," "Water," "Sunshine," and many other such. It is written in an easy, familiar and simple style, and is dedicated to the "Children of America." Price: In cloth, \$1; leatherette, 75c.

**THE ILLUSTRATED NEWS OF THE WORLD**, besides the excellent illustrations, gives most valuable information, historical and other, and on current topics. "Armored of Lyonesse," by Walter Besant, is now completed, and in the number for July 19th will be given the first instalment of the "Wonderful Adventures of Pharo the Phœnician," retold by Edwin Lester Arnold, with an introduction by Sir Edwin Arnold, and illustrated by Mr. H. M. Paget.

**THE POPULAR SCIENCE MONTHLY** for July opens with an article by Dr. Andrew D. White on the Antiquity of Man and Prehistoric Archaeology, telling how science has thrown light on the question of the length of time that man has lived on the earth.

**IN THE JULY CENTURY** is the first of two papers on "Provence," which describes and brilliantly illustrates an unhackneyed region of the Old World: that part of France which is like Italy—with its splendid Roman remains, its palace of the Popes, and its associations with Petrarch and Laura. Miss Preston, who wrote the article, is the well-known translator of "Mireio," by the great Provençal poet Mistral.

**THE "ANNALS OF SURGERY"** has now entered upon its sixth year of publication. Much praise is due both to the home and foreign editors for the high literary standard sustained. It is the only journal published in the English language devoted exclusively to science surgery and which does not seek popularity by giving

minor surgery, but rather bringing the reader up to the highest literary and practical attainments, nor does it in the least degree cater to advertisers. The numbers are well illustrated with fine engravings and diagrams, elucidating the text. (\$5 00 per year. Sample copies 50 cents. J. H. Chambers & Co., St. Louis, Mo.).

**SIX YEARS IN CENTRAL AFRICA**, a stirring narrative of personal adventure in the wilds of that great lone land, by one of Stanley's pioneer officers, began in the April St. Nicholas. Of this delightful magazine Book Notes says: Never before has there been published so excellent a periodical for young people; and it is a positive fact it is just as good for old people (only there are none) as it is for young people; and Critic, N. Y., says: St. Nicholas leads the van among the juvenile magazines on both sides of the Atlantic. The Century Co., 33 E. 17th Street, New York.

**THE GRAPHIC**, Chicago's popular illustrated weekly, is publishing a story of Canadian life, by Mrs. Mary Hartwell Catherwood, author of the somewhat famous "Romance of Dollard," published a few months ago in the Century Magazine, the "Story of Tonty" and other charming chapters of Canadian history and tradition. The Graphic story is entitled "The Children of Ha-Ha Bay," the scene being laid successively near St. Alexis, Chicoutimi and Tadousac. Marie, a fair orphan girl; her grandfather, a hermit, at Chicoutimi; Ignace, a brave young forester, and Justine, his sister, are the well-drawn characters in this one of the best of Mrs. Catherwood's shorter stories. The three issues containing the sketch, well illustrated, may be obtained of most newsdealers, or they will be mailed free by the publishers on receipt of 30 cents.

**THE QUEEN'S ROYAL HOTEL**, Niagara-on-the-Lake, Ont., has recently opened for its twenty-second season. This summer resort is picturesquely located in a private park at the mouth of the Niagara River, on the shore of Lake Ontario. For entertainment there are four lawn tennis courts, with bathing and boating. The famous black bass fishing of Niagara is directly opposite the hotel. The grounds are lighted by electric lights. Families can rely on finding every home comfort at this favorite summer resort.