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-THE-  
**HEALTH JOURNAL,**

A Monthly Review and Record of  
**SANITARY PROGRESS**

—EDITED BY—  
**EDWARD PLAYTER, M.D.**

*Public Health and National Strength and Wealth.*

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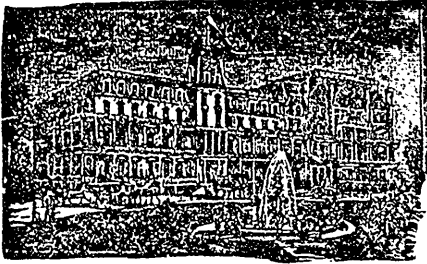
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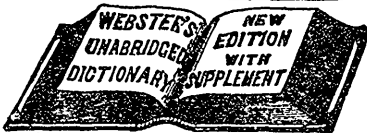
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# THE HEALTH JOURNAL.

A Monthly Record of Sanitary Progress.

VOL. XI.

APRIL, 1889.

No. 4

## THE DUTIES AND DIFFICULTIES OF SANITARY INSPECTORS.

READ AT THE MEETING OF THE ASSOCIATION OF SANITARY INSPECTORS OF GREAT BRITAIN, FEB. 2ND, 1889, BY ARTHUR NEWSHOLME, M. D., MEDICAL OFFICER FOR BRIGHTON. FROM THE SANITARY RECORD, MARCH 15TH.

THERE is little doubt that sanitary inspectors have grievances which it is well should be aired, and the discussion of the grievances may lead to the elaboration of combined measures, tending to protect every individual inspector, and thus to improve the general efficiency of the public health service. The historical view of a subject always throws light on its intricacies and general bearings; and it is useful in this connection to remember how few years have elapsed since the first inspector of nuisances, or, as we prefer to term him, sanitary inspector (and I may add the first medical officer of health), was appointed. Sanitary science is of but recent growth, and some of its pioneers are still among us; foremost among whom we are proud to recognise Sir Edwin Chadwick, K.C.B., the president of the Association of Sanitary Inspectors. The recent growth of sanitary science need, however, cause no surprise, seeing that physiology and medicine, on which sanitary science is largely based, have only within the present generation attained to any great extent scientific precision. A knowledge of the nature of disease is an essential preliminary to a knowledge of its causation and of the methods of prevention. Hence sanitary science, in many of its most important directions, is dependent for its efficiency on the knowledge of the physician; who points out the causes of various diseases, and call to his aid the engineer to drain and dry the subsoil, and to construct sewerage and other works; the architect to build houses which shall fulfil the hygienic requirements of light and warmth and fresh air; and the sanitary inspector

to watch and track in detail all the conditions which make for disease.

### RELATION OF THE MEDICAL OFFICER TO THE INSPECTOR.

The relation of the medical officer of health to the sanitary inspector is therefore of special and peculiar importance. The more closely they are associated in their mutual and complementary work the better; and the strongest possible objection exists to any arrangements which interfere with their direct relationship with each other. Far from being in any sense rivals, the inspector and medical officer are each of them essentially necessary for the efficiency of the work of the other. Their relation may be compared to that of a physician and a trained nurse attending a case of anxious illness, where one is the administrative and the other the executive officer, and neither could afford to dispense with the services of the other. But in saying this, I assume that the medical officer is not only a skilful physician, but that he has had special training in public health work; that he is possessed of special guarantees of efficiency in his work, and that he is not engaged in any medical practice except that of an occasional consultant, for which his official position peculiarly fits him. It may appear a work supererogation to enumerate to this audience the *duties* of sanitary inspectors, but as such an enumeration has an important bearing on the status in which the inspector ought to be held, I may be excused for attempting to give it. It is his duty to make himself conversant with every branch of sanitary work—a task

requiring no small amount of trained intelligence and skill. Not only questions of house-drainage and ventilation, but nuisances arising from noxious trades, diseased and unsound meat, dairies and cowsheds, slaughter-houses, food adulterations, and the tracing of infectious disease, with the methods of disinfection and isolation, all require his skilled attention. In matters of house-drainage, it is of special importance that he should know *the tricks of the trade*; as for instance, that soil-pipes which are securely soldered in front to meet the eye, frequently have open joints on their unexposed sides; that there are traps which, although they are constructed according to an approved pattern, from bad workmanship do not seal; others that leak into the ground; and drain-pipes not jointed. In one case I am informed of, one intercepting trap did duty for every house in a new street, although separate drainage was being carried out for each house; for as soon as the vestry officer had turned his back and left, the trap was removed and a straight pipe inserted in its place. This could be easily done, as clay joints were used. It would be impossible in such a town as Brighton, where cement joints are insisted on. The joints of lead pipes are frequently secured (?) by putty, which is then painted over, and to the superficial observer, looks like a soldered joint. It is evident that lead work should not be painted over until after being passed by the inspecting officer.

#### DUTIES AND QUALIFICATIONS OF THE SANITARY INSPECTOR.

The preceding enumeration of the duties of the sanitary inspector prepares one to consider his *qualifications*, which are (1) technical and (2) general. The *technical* requirements may be classified as *medical*—in so far as it is his duty to understand the methods of spread of infectious diseases, and the means calculated to arrest this spread—*sanitary*, in relation to drainage, ventilation, lighting, trade nuisances, inspection of food, etc.; and *legal*, in so far as he requires to be familiar with the Public Health Acts, which enable him to use coercion where the gentler influences of persuasion have failed. The scope of the technical qualifications of the sanitary

inspector is necessarily wide, as wide as sanitary science itself, and it is of importance that his fitness for his work should be tested by some special examination. If I may venture to criticise the examination of such an important body as the Sanitary Institute, I would suggest, that while the theoretical examination is not made less stringent, a more thorough practical examination, especially as regards unsound foods, should be enforced, and that Building Construction should be added to the list of subjects for examination, of a standard similar to what is required to obtain an advanced certificate in Building Construction under the Science and Art Department. I am indebted to Mr. Fairchild, Sanitary Inspector of Clapham, for the following suggestion, which appears to me a very valuable one. The certificate of the Sanitary Institute should not be granted as the result of examination alone; but the candidate should be required to produced proof that he has been employed for at least one year as an assistant inspector, or in practical sanitary work in some other capacity.

THE PERSONAL qualities which should characterise an inspector are as numerous and important as the technical. Combined with tact and good temper, and courtesy in all his dealings, his general intelligence should be such as to command respect; and his fidelity to his work, his conscientiousness and moral character, above reproach. Many of the duties of the sanitary inspector are irksome, and may appear paltry in their detail: they should be looked at, however, in relation to their influence on the health of the community; and for this reason, if for no other, a man of high moral character will make the most efficient inspector. When we remember that a defective trap may bring disease and death into the house; that a damp unventilated house may produce consumption (phthisis); that accumulations of organic refuse, as in dustbins, cause ill-defined illness if not actual diphtheria; that in all probability tuberculosis may be propagated by milk derived from consumptive cows; that typhus fever may breed where overcrowding and filth prevail—then surely attention to details be-

comes a high and noble mission in life. But it is the high privilege of inspectors not only to diminish disease and improve the general standard of health—for the two must go together, sanitary reformers have not solely (as is sometimes urged) keep alive the weakly ones, but have also made the weakly strong—by their definite official work, but also to create that enlightened public opinion which will sustain and co-operate with their efforts and eventually produce in the people such habits as will render every man in the community a health officer in his own house. There is a moral aspect to the question. The sanitary inspector who is thus acting as a home missionary to the poor and helpless, in so far as he increases their clearness and self-respect, and diminishes overcrowding and facilitates the decencies of family life, is rendering possible the conditions of moral and social improvement.

#### THE DIFFICULTIES OF SANITARY INSPECTORS.

Having briefly glanced at the duties and qualifications of the sanitary inspector, a few words about his difficulties. I shall confine myself to a brief consideration of four of the difficulties and drawbacks which beset the career of a sanitary inspector, viz.: 1. The inactivity or actual obstruction of local authorities and of the public. 2. A deficient staff of inspectors rendering thorough and complete work almost impossible. 3. Insecurity of tenure of office. 4. The absence of any provision for superannuation.

And first among these should be placed the inactivity or actual obstruction of local authorities and of the public. This holds good to a greater extent in rural than urban districts, and in small towns than in large. It may reconcile us, in some measure, to delay and even to temporary defeat, to remember that we are but servants of the local authority under whom we work. It is ours to point out defects and indicate their dangers; it is for the local authority to take the ultimate responsibility of acting or refraining. Much, indeed, may be accomplished by advice and gentle pressure, more perhaps, than

by extreme measures taken hurriedly; and especially so when it is understood that under the velvet glove of persuasion there lies concealed the iron hand of law. The vested interests of the owners of inferior house property are often a source of difficulty. It always seems to me that opposition on their part is somewhat shortsighted; for they forget the greater value which appertains to sanitary dwellings.

The only way to overcome these difficulties is by steady efforts to educate the public. Sanitary inspectors and medical officers of health *may* err; but if they think they are right in any course of action which they are not allowed to carry out, they must bide their time, until the public mind is fully imbued with the importance of the reforms they have at heart. Sanitary officials ought to be instrumental in leavening public opinion; they should be pioneers in all that relates to the public health; but if they attempt to prematurely force on reforms for which the public mind as represented in the local vestry, or Board of Works, or Corporation, is not prepared, the cause of sanitary progress may suffer, and the reforms we ardently desire may be indefinitely postponed. A successful appeal may often be made to the personal interests of householders. No man liveth unto himself. Pestilence may spread from the crowded alley to the fashionable street. A condition of filth and degradation among the poor is a constant menace to the rest of the population. However sanitary a man's house may be, neglect to remedy insanitary conditions in his vicinity may ultimately prove fatal to himself or his family. In these respects the protective and preventive influence of periodical systematic sanitary inspection is becoming much more thoroughly recognized by the public; and its superiority over the old-fashioned plan of waiting for a nuisance or an epidemic to occur, and then display a spasmodic activity against it, is becoming appreciated.

2. A DEFICIENT STAFF of inspectors is another source of difficulty, by throwing on the existing staff a greater amount of labour and responsibility than they are able efficiently to discharge. Such econ-

omy is short sighted. Sanitary work is expensive but disease is more expensive. Money is more economically spent on sanitary inspection than on paying the poor-rates for those who, through insanitary conditions, have lost their bread-winners. I am not aware that any attempt had been made to obtain a return of the number of inspectors employed by each local authority throughout the country, in proportion to population; but such a return would be very valuable, and would afford a useful indication of the sanitary activity or in-ertness which characterizes the different parts of the country. In Brighton, with a population of about 120,000 persons, we have a staff of one head inspector and eight assistant sanitary inspectors, in addition to inspectors to superintend the removal of house refuse, and others who attend to defects in water apparatus. Every penny spent on this staff, in my opinion, will pay a return to the borough of Brighton with compound interest, and tend to greatly enhance its already high reputation as a health resort.

3. INSECURITY OF TENURE of office is a grievous difficulty in the path of some inspectors. The duties of an inspector are such as almost necessarily bring him occasionally into antagonism with those amongst his employers who are owners of house property; and especially does this occur in districts where insanitary conditions are rife. The fact also that the inspector is liable to the risks connected with periodic re-election handicaps his work, and renders it extremely difficult for him to satisfactorily discharge his duties. There should be tenure of office during good behaviour, as at Brighton; and in some districts, especially rural, it is desirable that there should be the right of appeal to the Local Government Board in the event of unfair dismissal. Such a system is already in force in Scotland, where the sanitary inspector is only removable with the consent of the Board of Supervision, which represents the English Local Government Board; although, strange to say, the medical officer of health has no such protection.

4. THE LOW REMUNERATION which the sanitary inspector receives, often little more than the wages of an artisan, is very anomalous, when we remember the variety and character of the subjects with which

he is expected to be familiar. If for no other reason, the fact that in the execution of his duty he frequently carries life in his hands, should surely entitle him to fair remuneration, and to (5) *Superannuation* in case of disablement through sickness or old age. At Liverpool such a system is already in force. The claim to superannuation should not be lost, however, by moving from one sanitary post to another, and with this object the best scheme would be an Imperial and not a local one. If our policemen, our soldiers and sailors, and our civil servants are deserving of superannuation, then surely the sanitary officials, who are the soldiers of peace and health, should not be left out in the cold.

I must pass on from this incomplete and hasty discussion of the sanitary inspector's difficulties to say a few words on the peculiar relation which the sanitary official bears to the British public. He represents a tangible, and often a most disagreeable, interference with that liberty of which Englishmen boast. The Englishman's home is not his castle while it is liable to the official (and he thinks the officious) intrusion of the sanitary inspector. It may be fairly argued, however, that liberty without limits becomes license of a most pernicious character. A man may be at liberty to poison himself with sewer-gas, but how about his neighbours, and even his own helpless children? The fact that men congregate together renders it essential that individual liberty shall be restrained by State interference within the limits compatible with the welfare of others. Some of the greatest triumphs of sanitary science in the past have been by interference with the liberty of the subject. . . . In certain occupations it has been found necessary to step in between master and servant, in order to insure that the conditions of labor shall be as healthy as possible. In regard to house property, this interference with freedom of contract has been felt to be most galling and oppressive. But surely it is as reasonable to enforce sanitary regulations on landlords as to require that a butcher shall not sell unsound meat. Both are vendors; with this difference, that a man may usually change his butcher, but circumstance may oblige him to remain in a house, however unhealthy it may be.

## MANAGEMENT OF THE APPARENTLY DROWNED AND OTHER CASES OF SUSPENDED BREATHING.

**T**HE most common season of death by drowning is now at hand, and we again give the following methods of restoring those who are apparently dead from immersion in water or from other causes of suspended breathing :

There are several ways of accomplishing the resuscitation of the apparently drowned, the same principle and object governing all—the restoration of the function of breathing, and the normal warmth of the body. The following methods are probably at least quite as effectual as any; and they have had a wide circulation. They were first given in a Bulletin by the Michigan State Board of Health, about fifteen years ago, and were directly after published in this JOURNAL, Vol. 1, May 1875. They have since been published by the Rhode Island, New Hampshire and other State Boards and by many papers. Although once published by this JOURNAL we think we cannot do better than give them again.

high as you can without lifting the forehead off the ground (Fig. 1), and give the body a smart jerk to remove mucus from the throat and water from the windpipe; hold the body suspended long enough to slowly count ONE, TWO, THREE, FOUR, FIVE,—

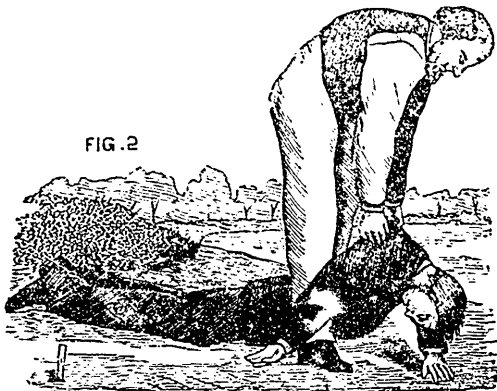


FIG. 2

repeating the jerk more gently two or three times.

**RULE 2.**—PLACE THE PATIENT FACE DOWNWARD, and maintaining all the while your position astride the body, grasp the points of the shoulders by the clothing, or, if the body is naked, thrust your fingers into the armpits, clasping your thumbs over the points of the shoulders, and raise the chest as high as you can (Fig. 2) without lifting the head quite off the ground, and hold it long enough to slowly count ONE, TWO, THREE. Replace him on the ground with his forehead on his flexed arm, the neck straightened out, and the mouth and nose free. Place your elbows against your knees, and your hands upon the sides of his chest (Fig. 3) over the lower ribs, and press downward and inward with increasing force long enough to slowly count ONE, TWO. Then suddenly let go, grasp the shoulders as before and raise the chest (Fig. 2); then press upon the ribs, etc. (Fig. 3). These alternate movements should be repeated ten to fifteen times a minute for an hour at least, unless breathing is restored sooner. Use



FIG. 1

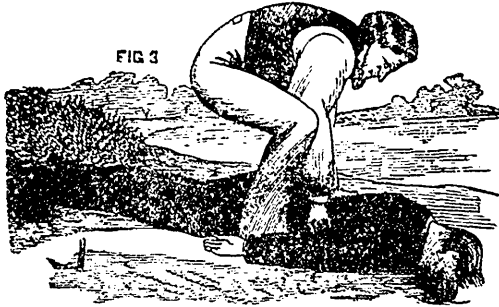
**TWO THINGS TO BE DONE** :—RESTORE BREATHING ; RESTORE ANIMAL HEAT.

**RULE 1.**—REMOVE ALL OBSTRUCTIONS TO BREATHING. INSTANTLY LOOSEN or cut apart all neck or waist bands; turn the patient on his face, with his head down hill; stand astride the hips with your face toward his head, and, locking your fingers together under his belly, raise the body as



the same regularity as in natural breathing.

**RULE 3.—AFTER BREATHING HAS COMMENCED, RESTORE THE ANIMAL HEAT.** Wrap him in warm blankets, apply bottles of hot water, hot bricks, or anything to restore heat. *Warm the head nearly as fast as the body least convulsions come on.* Rubbing the body with warm cloths or the hand, and slapping the fleshy parts may



assist to restore warmth and the breathing also. If the patient can *surely* swallow, give hot coffee, tea, milk, or a little hot sling. Give spirits sparingly, least they produce depression. Place the patient in a warm bed, and give him plenty of fresh air; keep him quiet.

**BEWARE.**

**AVOID DELAY!** A MOMENT may turn the scale for life or death. Dry ground, shelter, warmth, stimulants, etc., at this moment are nothing; **ARTIFICIAL BREATHING IS EVERYTHING,** is the ONE REMEDY,—all others are secondary.

**BE PROMPT!**

*Do not stop to remove wet clothing before efforts are made to restore breathing.* Precious time is wasted, and the patient may be fatally chilled by exposure of the naked body, even in summer. Give all your attention and effort to restore breathing by forcing air into, and out of the lungs. If the breathing has just ceased, a smart slap on the face or a vigorous twist of the hair will sometimes start it again, and may be tried incidentally, as may, also, pressing the finger upon the root of the tongue.

Before natural breathing is fully restored, do not let the patient lie on his back

unless some one holds the tongue forward. the tongue by falling back may close the windpipe and cause fatal choking.

If several persons are present, one may hold the head steady, keeping the neck nearly straight; others may remove wet clothing, replacing at once clothing which is dry and warm; they may also chafe the limbs, and thus promote the circulation.

*Prevent friends from crowding around the patient and excluding fresh air; also from trying to give stimulants before the patient can swallow.* The first causes suffocation: the second fatal choking.

**DO NOT GIVE UP TOO SOON:** You are working for life. Any time within two hours, you may be on the very threshold of success without there being any sign of it.

*In suffocation by smoke or any poisonous gas, as also by hanging.*

proceed the same as for drowning, omitting effort to expel water etc., from the air passages.

*In suspended breathing from effects of chloroform, hydrate of chloral, etc.,* proceed by Rule 2, taking especial pains to keep the head very low, and preventing closure of the windpipe by the tongue falling back. Grasp the tongue between the fore-finger and thumb, draw forward and hold.

**PERSIST IN EFFORTS TO RESUSCITATE.**

Prof. R. C. Kedzie, ex-President of the Michigan State Board of Health, says, in relation to the foregoing, and in urgent persistence of efforts to resuscitate the drowned: This bulletin has been widely distributed and has secured a wide dissemination in our country. How much good has thereby been secured, it is impossible for me to state; but I have good reason to fear that *life is often sacrificed because energetic efforts at resuscitation are abandoned too soon.* I desire once more to urge upon the public the *duty of persistent efforts to resuscitate the drowned* and to repeat with emphasis in one direction of the bulletin; "**DO NOT GIVE UP TOO SOON; you are working for life. Any time within two hours you may be on the very threshold of success without there being any sign of it.**"

The efforts which are successful in restoring a human being to life certainly are not useless, and it is wicked to refuse or neglect to make such efforts, unless the absolute certainty of death is established. It is not enough to say that the person *appears* to be dead. Persons who gave no signs of life for a long time after being taken out of the water have yet been brought to life by appropriate efforts. I most earnestly protest against treating the drowned as dead merely because they appear lifeless. I am fully persuaded that many such persons die because no adequate efforts are made for their recovery. Persons may swoon, and for the time appear to be dead, but we do not assume that they are dead and leave them to their fate, but make energetic efforts to restore consciousness. No more should we assume the fact of death in the drowned, but should make like efforts to restore them to life.

#### HOW NOT TO DROWN.

How to drown is an art that seems to be well understood and frequently practised the world over. How not to drown is an art not so well understood, and requires some notice at the hands of this board. Drowning could be prevented if we could secure either of the following conditions : first that everybody should know how to swim ; 2nd. that nobody should ever go into the water. But as we cannot secure either of these conditions in the present order of things, we turn our attention to some means of reducing these accidents to their minimum of danger.

Much good advice is often thrown away upon persons who find themselves suddenly thrown into the water : " Keep cool ; " " Do not lose your presence of mind," etc. The conditions are very favorable to follow the first advice in a literal sense, for the water itself will assist one to get cool and keep so indefinitely, but when a person is suddenly compelled to face death in an unexpected form, the advice to " preserve your presence of mind " is usually driven out of the mind by overwhelming terror, and the person too often becomes *absent-minded* in an awfully literal sense of the word.

The solids and liquids of the body are heavier than water, but the living body on account of the air in the lungs, stomach and bowels, is slightly lighter than water, and so long as these cavities remain filled with air, the body will float in water, and a small part of the body can be kept above the water. While it is true that so long as the lungs etc., are filled with air the body is lighter than water, the difference in specific gravity is small, and only a small part of the body will float above water. What part of the body will be above water depends upon the relative position of the other parts of the body, if the legs are flexed and the arms thrown in front of the body, the centre of gravity is in the anterior portion of the body, and the top of the shoulders and back of the head only will be above water ; the face being under the water, respiration will be impossible under such circumstances. But if the legs are straightened out and the arms thrown behind the body, the face will be brought above the water. In the attempt to float, therefore, *the legs should be straightened out, and the head thrown back and the arms held behind the body*: the face will then float above the water so long as this position is maintained. If one part of the body is thrown out of the water a corresponding amount of the body will be submerged ; if the arms are held out of water, the head will go under. I remember the case of a boy who thought he could greatly increase his power to swim by tying an inflated bladder to each foot, but when he entered the water he came near drowning, because his feet were kept out of water, but his head under water, and he soon became practically convinced that it was important that his head rather than his heels should be in the air.

If the mouth and nose are kept above water, respiration may go on without interruption, and life may be sustained indefinitely under such circumstances. This may be secured in still water by merely floating with the face upward, every other part of the body being kept constantly under water. But with very little exertion a person may do more than keep his nose above water, even if he is ignorant of

the art of swimming. I have seen persons "tread water" by making the same movements with the legs as in walking up stairs, and thus keep the entire head out of water for a long time. If a person will add to this certain corresponding movements of the hands,—in fact, *make the same movements of both arms and legs that he would in climbing a vertical ladder* but without lifting the arms out of the water and without closing his hands in the downward movement of the arm, he may keep his head out of water even if the waves are running high, and may keep from drowning for hours. Whenever a person finds himself in the water and in danger of drowning, let him assume as speedily as possible a vertical position, and at once begin the same movements as in climbing a vertical ladder,—*let him climb for life*,—and he will be surprised to find with what slight exertion he can keep his head above water; let him be satisfied with this, for he may exhaust himself in vainly attempting more.

PADDLING THE WATER AS A MEANS OF PREVENTING DROWNING.

The following communication from Dr. MacCormac, of Belfast, is inserted as imparting valuable information on this important subject: Already the season has been ushered in by a number of deaths, some of them occurring in our very midst, from drowning. The means of safety, or relative safety, which I have to point out are so very simple and, as I believe, so effective, that I am lost in wonder that no one has thought proper to insist upon them, as in the following remarks it is my intention to do so. Swimming, as ordinarily practiced, is not the most sufficing means for escaping the dangers of the water. It needs some instruction to be able to swim, and practice to be able to swim well. No doubt it is desirable to swim and to swim well, but the great majority of persons of both sexes do not know how to swim at all. Yet unless people can swim, and swim well,—and even then they are not always successful, when the emergency comes, in preserving life,—swimming is, I am persuaded, not so effective a preservative as is con-

joint paddling and treading water. As a rule, subject to few exceptions, persons precipitated into the water do not swim without previously learning. But paddling with the hands and treading with the feet require no prior instruction, and in the great majority of cases would save life. In swimming, the mouth is on a level with the water in the intervals of the strokes; in paddling, the head is well elevated, the individual is able to look about, he can deliberate as to what is best to be done, and he is much less liable to take water into the larynx or glottis, a casualty which, I am persuaded, causes the destruction of many. Without prejudice to the art of swimming, I would have children exercise in household tanks from the tenderest age, in the act of paddling and treading water, so as to impart the confidence which unreasoning dread tends to lessen or take away when one is suddenly immersed in an unusual medium. The animal, the quadruped, begins to paddle at once when cast into the water, but as man does not habitually employ the anterior limbs as organs of locomotion, reason must tell him that he may, if he pleases, employ them as organs of locomotion in the water, just as readily as any four-footed animal. To be sure a man has not the habit of using his hands and arms for locomotion, as the brute has, but otherwise how much more available is the paddle-shaped hand than a hoof or a paw. Again, the man with little or no instruction, by throwing his head well back, can float and rest at pleasure, a thing of which the brute has no conception whatever.

Of course a little preliminary habitude is desirable, but without any preliminary habitude or instruction whatever, there is nothing to hinder man, woman, or child, were they unable, in common parlance, to swim a stroke, from beating water with the hands and feet, just as the lower animals do, and so keep themselves afloat for a protracted period, a period that in a multitude of instances would be found sufficient to invite rescue and preserve life. The action of the feet down will sustain the body; the action of the hands down will do so; *a fortiori*, the action of both

will prove yet more effective. I have tried myself, one alone, or both together, nay, with a single hand only, in bygone years, I am sure, hundreds of times. There is no occasion for fuss or bustle. The body, taken as a whole, is actually lighter than water, bulk for bulk, and a very moderate amount of paddling with feet and hands will be found perfectly adequate to sustain and guide its movements. In fact, so long as the individual paddles, as I here direct, he cannot sink. A horse, or dog, or cow, or cat, or swine, when immersed in water, begins instantly to paddle, and that without any prior instruction or exercise whatever. Now a man, or woman, or child has only to do as the inferior animal does, and he, or she, or it will float necessarily and inevitably. The place being otherwise safe and boats at hand, boats' and ships' crews, a regiment of soldiers, schools and the like might jump into deep water and paddle themselves into security without risk of failure. In this, as in many other things, man is too often unaware of his own immense capacities.

Animals not habituated to the water will often take to it spontaneously, or if cast into it, sustain themselves for indefinite periods. Dogs often gain the shore when ships and their crews have been lost. Some years ago a dog landed at the Cape of Good Hope with a letter in his mouth. The vessel to which he belonged had gone down with all hands; but if the men had paddled as the dog had paddled, all their lives might have been preserved. Indeed, I know for certain that formerly it was the practice at the Cape for men to paddle out, it was termed "treading water," and

bear communications to and from vessels in the offing, where no boat could live. It was, and I believe is still, the case at Madras, similarly. Natives at the island of Ioanna, in the Mozambique Channel, treading water, come out, bearing fruit on their heads to the vessels, miles distant. The young people in the islands of the Pacific breast the gigantic breakers out of mere sport. The Indians of the Upper Missouri traverse the impetuous current, invariably paddling and treading water.

Short instructions for paddling and treading water ought to be posted up in all schools, barracks, and bathing places; wherever, in short, people have to do with the sea or masses of water. It should be shown how easy it is, with a little well-directed effort, to preserve life, and how the yearly and calamitous destruction which besets our shores might now, and happily for all time to come, be effectively stayed.

One precaution is necessary for a person who is paddling and treading water, to avoid strangling; when cold water is suddenly dashed into the face, an automatic or involuntary inspiratory effort or "catching the breath" is caused, and if the face at the instant is covered with water, strangulation from drawing water into the lungs is the result. When waves are dashing in his face, the person must guard himself against this spasmodic inspiration by holding his breath at such times, or he may even grasp his nose and close his mouth with one hand and thus prevent the possibility of strangulation, if such effort can be made without sinking the body too low in the water.

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#### HEALTH CONTRACTS—UNDERTAKING TO ATTAIN CERTAIN SANITARY RESULTS.

THE time, it would appear, is probably not far distant when contractors may, with safety and profit, undertake for a certain sum of money to reduce the mortality in a city to a given rate, and so to prolong the lives of the people to a fixed average age. In an address Sir Edwin Chadwick, K. C. B., &c., before

the Association of Sanitary Inspectors of Great Britain, in March last, said: Various experiences in this county have established with certainty that a contractor may contract with safety for the attainment of sanitary results, and by them the general death-rate may yet be reduced by ten in a thousand. He stated the

chief present conditions to which we have advanced in the practical applications of sanitary science, which are as yet but very imperfectly known. He stated nothing upon hypothesis, or Utopian ideals, but upon well examined experiences.

It is no Utopia that death-rates in towns have been reduced by one-half through the work of the sanitary engineer alone. It is no Utopia that the death-rate at Rugby, for example, which was one of the towns first treated by our first General Board of Health, was then twenty-four in a thousand, and is now only twelve. It is no Utopia that at Salisbury the old death rate, which at the beginning of the century was as high as forty in a thousand, is now about sixteen : or that at Croydon and a number of other places, death-rates of twenty-four in a thousand now average fifteen. These reductions have been effected by the system of "circulation versus stagnation," which is yet to be made generally understood, to be by constant and direct supplies of water, by the removal of the fouled water through self-cleansing house-drains and self-cleansing sewers, and by the removal of the refuse—fresh and undecomposed, and unwasted—on to the land.

The reduction of the annual death-rate is, of course, accompanied by an advance

of the life-rate, and the Registrar-General gives examples of what that advance may be. At Rugby the life-rate has been extended to all living there, of every class, by eight years, or from thirty-three to forty-one-years. At Hastings the duration of life has been advanced for males five years and five months, but for females an average of eight years and one month. At Leek it has been extended by ten years; at Croydon and Salisbury and other places, the extension has been from six to seven years, females, as a rule, obtaining, by our science, the greatest share—that is to say, some eight years more of life-rate, more of painless life, more of health and strength and beauty. These extensions of the life-rates, as yet little known and regarded, belong however to all classes whose life-rate is largely the lowest, the extension will be found to be the greatest. To them the greatest gain developed is by the house alone, the "model dwelling," the work of the sanitary architect, giving ten years more of life and working ability, a result cheap to pay for by extra rents, and which would be still further improvable by the removal of surrounding deteriorating conditions, especially bad schools and ill-conditioned places of work.

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#### SANITARY SUGGESTIONS ON MILK SUPPLY.

MR. GEORGE MCKAY, Sanitary Inspector for the Burgh of Govan, Scotland, has prepared the following Memorandum of extra legislative powers proposed to be obtained by Local Authorities, in dealing with the sale of milk, and which are not at present conferred by the "Public Health Act, (from the Sanitary Journal, Glasgow).

1. Compulsory notification to the Sanitary Inspector of existence of infectious disease in dairyman's house or registered premises, or of illness from infectious disease of any person employed in the sale or distribution of the milk. .

2. Compulsory power beyond what is contained in Public Health Act of removal

to hospital of infected patients from a dairy or dairyman's house.

3. Power of stoppage of milk supply after removal until incubating period of specific disease is over.

4. In event of non-removal, power of instant and complete stoppage of milk supply to any member of the public until premises and milk are certified by medical officer to be free from all risk of communicating disease to the inhabitants.

5. Power to Local Authority to inspect and examine dairies and milkshops in any place situated beyond their municipal limits; and on the certificate of their Medical Officer of Health, or any medical practitioner, that infectious disease is

spread by the agency of milk from any of such dairies or milkshops, the Local Authority should be empowered to prohibit the sale or distribution of milk to any member of the community resident within their jurisdiction.

6. On the certificate of a veterinary surgeon or medical officer of health, that any cow or cows affected with tuberculosis, scarlet or other fever, which in his opinion is likely to contaminate the milk of said cow or cows, the sanitary inspector be empowered to prohibit the sale of such milk.

7. Power to sanitary officers and police to detain any cart used for the sale of milk from a prohibited dairy.

8. Power to Local Authority to obtain at any time from dairies and purveyors of milk accurate and complete lists of farms from whom they receive their milk supplies, and the customers to whom such or their own cow's milk may be delivered, also the daily quantities bought and sold by them.

9. Whenever the sanitary inspector of a rural Local Authority becomes aware of a case of infectious disease being in a farm or dairy, he shall immediately communicate such fact to the sanitary inspector of such district or burgh as is to his knowledge receiving milk from such farm or dairy.

10. Power should be given to every Local Authority to prevent the open communication of milkshops and sleeping apartments.

11. Every dairyman and milk seller in all burghs, prior to receiving any milk from rural dairy, for sale within such burgh, shall obtain a written certificate from the rural Local Authority, that the drainage, water supply, ventilation, and general arrangements of such dairy are satisfactory, which the said Local Authority shall be bound to supply.

12. Any dairyman or purveyor of milk to whom a certificate of registration has been given who removes from his registered premises shall, within seven days next after such removal, give notice in writing thereof to the sanitary inspector.

13. (The following clause has been framed and added as being suggested at the Con-

ference held on the 7th of Feb. in the Govan Parochial Chambers.) Such milk-seller or purveyor who has been prohibited by a Local Authority from supplying milk either directly or through a wholesale dealer to the public, shall be entitled to compensation from such Local Authority for every day during which prohibition remains, and such compensation shall be based upon the daily quantities or sales of such milk-sellers or purveyors as are ascertained to be delivered within the limits of said Local Authority, in terms of section 8 of this Memo.

The foregoing suggestions were again considered by the Local Authority of the Burgh of Govan on March 27th, when the clauses of the Memorandum were considered *seriatim*, and approved of. The clerk was instructed to forward copies of the Memorandum to the Secretary of State for Scotland and to the Board of Supervision, impressing upon them the necessity of such powers being conferred upon Local Authorities, in order that they may be better enabled to cope with outbreaks of infectious disease, and requesting that the suggestions should be considered; and, if approved of, that steps should be taken to have them enacted as legal provisions.

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GRAVE-YARD WATER—DRINKING THEIR ANCESTORS.—The Annals of Hygiene(Phil.) says: We have had occasion from time to time to chronicle some of the delectable ingredients that are to be found in Schuylkill water, such as oil of cedar, which we believed was derived from the cedar coffins in Laurel Hill Cemetery. Now we have to tell of the most startling and latest discovery that we have from such unquestioned authority as Dr. Charles M. Cresson, who has been systematically examining this water for many years past. This gentleman has actually discovered the presence of "*adipocere*," which, to the uninitiated, we would say is a waxy substance formed from the decomposition of the fat of animal bodies. Thus then, having the fact from undoubted authority we can no longer question that the bodies of our ancestors, decomposing in Laurel Hill, on the banks of the Schuylkill, are draining into the river, to be imbibed by the people of Philadelphia.

## REPORT OF THE SPECIAL COMMITTEE ON TUBERCULOSIS.

**D**URING the Session of Parliament of last year, as many of our readers know, the editor of this JOURNAL brought before the Agricultural Committee of the House the subject of tuberculosis in cattle and the probability that this disease may be transmitted from cattle, especially from cows, by means of the flesh, milk and butter, to the human organism. A special committee was at that time appointed by the Agricultural Committee to investigate the question. On April the 19th inst., the special committee presented their report. The committee had held a number of meetings last year and had decided that information should be sought, and for this purpose three sets of questions were sent out, soliciting answers. One thousand four hundred and eighty questions were sent out to medical gentlemen engaged in active practice, to which 215 replies were received. Two hundred and twenty-eight questions were sent to veterinary surgeons and 42 replies were received. Two hundred and eighty-four were sent to farmers and 134 replies received.

Information was also obtained from England, Maine and Massachusetts. In England a departmental Committee, under the authority the Privy Council of Great Britain, was sitting during 1888 to investigate the nature and extent of both pleuro-pneumonia and tuberculosis.

From careful analysis of the replies or reports of the medical practitioners it is ascertained that : They believe that from 10 to 50 per cent. of the cases of disease and premature death might be prevented by judicious sanitary measures ; that consumption is contagious and infectious, and isolation would assist in prevention, but that the chief preventible causes of disease are contagion, impure air and water, unhealthy diet, decaying animal and vegetable matter, bad drainage, general want of cleanliness and sudden changes of temperature. Some report glanders as having been communicated from horses to men, others mention skin diseases and a few express the opinion that tuberculosis may be transmitted to the human system, as well as diphtheria, by the medium of im-

pure milk and meat : but few have met with actual cases in their own experience of disease being so communicated.

The farmers reply that in the main they have very little knowledge of contagious diseases existing, although they mention a few cases. They express belief that cattle of improved breeds, being esteemed more valuable, are more confined and consequently more delicate. There is next to no experience mentioned as to the use of diseased meat or milk, in fact there is hardly a single reply to the enquiry whether the milk or flesh of animals whose lungs or liver have been found affected have been known to be used for food with bad results. This suggests that but few know or observe whether these organs are diseased.

The veterinary surgeons generally report that in their practice they have seen occasional cases of tuberculosis.

A few consider that the meat and milk of diseased animals should not be used.

### CONCLUSIONS REACHED.

The special committee, from the foregoing evidence enumerated, are decidedly of opinion that the disease known as tuberculosis exists to a much greater extent than has been generally recognized. In the United Kingdom and in Europe preventive legislation has been most strongly urged. The very reference of the enquiry into these diseases to a departmental committee of the Privy Council in Great Britain shows how serious the danger is considered and the necessity for steps to arrest its increase, although it is deemed almost impracticable to attempt to eradicate it, and legislation pointing to the isolation and destruction of herds, with compensation to the owners, is advised and contemplated. In the State of Maine this action was actually taken in the case of the herd of cattle owned by the State at the State College, Orono, referred in a previous number of this JOURNAL. In Massachusetts public attention has been directed towards this serious state of affairs by the directors of the State Agricultural College, and Professor Farnald in a paper, warns the community that the disease is intercom-

municable between men and animals, contagious as well as hereditary, and is conveyed by using as food the milk or meat of diseased animals, and that in cases mentioned he found in public markets more than half the carcasses showed signs of disease.

We in Canada have reason to congratulate ourselves that our cattle are much more healthy, even on the assumption, which is to a certain extent justifiable, that our farmers and medical practitioners have not had their attention specially drawn to this trouble. We can undoubtedly believe that this insidious and fatal disease is not so prevalent with us as in the Mother Country or in the Republic to the south of us. But we also learn that the extreme gravity of the situation is even now only partially realized in those countries, although the evidence shows the great hold it has obtained and the danger to life, health and property that is threatened.

We are, therefore, of opinion that it is desirable to circulate the information we have gathered as fully and broadly as possible, both among the medical as well as the agricultural profession, in order to urge the closest scientific investigation,

so that further knowledge and information may be acquired as to the cause and symptoms of the disease, the methods of meeting it and the danger that will follow its continued existence among our cattle: and that this information be invited that it may be available for the consideration of the general committee next session, in order that such special legislation as may be considered expedient be asked for to check the further progress of this malignant disease, and if possible to eradicate it.

Realizing also the hereditary nature of tuberculosis, the Committee strongly recommend that the inspectors of cattle at the different quarantine stations be especially cautioned to closely examine imported cattle for any latent indications of this disease, and to refuse admission to any that appear affected. The committee conclude as follows: We are led further to the belief that our enquiries into the subject entrusted to us would have been much facilitated and productive of a much greater amount of information if a system of observing and recording vital statistics were established in the Dominion, and thus precautionary measures against contagion in any form would be better appreciated and more satisfactorily carried out.

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### STAMPING OUT CONSUMPTION.

DR. Cornet, who has long made a special study, with much investigation, into the causes and spread of consumption, in an address at the meeting of the Berlin Medical Society, held on March 13th of this year, made the following valuable remarks. His conclusions from the results obtained in his recent observations, warranted him in formulating rules for the prophylaxis of tuberculosis, and the conclusion drawn that those who escape the action of its infection are mainly protected through some individual peculiarity of disposition. It has been overlooked, however, in formulating these conclusions, that the universal distribution of the bacillus by no means presupposes the necessity for the existence of these bacilli in a free condition in the air. That, however, the air is the chief

carrier of the infective virus of phthisis, is regarded by Dr. Cornet, as having been absolutely demonstrated. All the tubercular bacilli which reach the atmosphere must have originated within the animal body, and this purely parasitic nature of the bacilli is the starting-point on which the theory of prophylaxis rests. The object to be attained, therefore, is evidently to deprive the bacilli of all noxious properties immediately on their exit from the organism. Although without doubt the faeces and urine in certain cases contain bacilli, yet it is generally admitted that there is no marked danger of infection from these sources, since it may be believed that in these excreta the tubercular bacilli would be rapidly destroyed by the bacteria of putrefaction. Infection through the



milk and flesh of tubercular animals introduced within the digestive tract is more worthy of attention but by far the most frequent source of infection is without doubt the tuberculous individual in whom the pathological process is located in the lungs. Here the expired air as the vehicle for this virus does not come under consideration, since the investigations of Naegle and others have shown that neither evaporations from the moist surface of the respiratory tract, or the forcing over it of a violent current of air, as in coughing, is able to carry the bacteria into the atmosphere. Tuberculous individuals, therefore, are only dangerous through their sputum, and only when it is dry and so distributed through the atmosphere that it may mix with the inspired air. That the healthy respiratory tract possesses means of protecting itself from the entrance of infective matter is clearly established, while it is also proved beyond doubt that under certain circumstances the respiratory passages may serve as the point of entrance of this virus to the lungs, and there be the starting-point of the phthisical process. If we now attempt to determine to what degree phthisical individuals, under ordinary circumstances, run the risk of causing the distribution of the bacillus, we will find that if phthisical patients started with the firm idea of destroying themselves and all around them as rapidly and as certainly as possible, they could not better accomplish their object than through the practices which we are every day encountering; for on all sides we find the universal habit of depositing the expectoration either on the floor or in the pocket-handkerchief—a procedure which is of all best calculated to favor the distribution of the sputum in dust form through the atmosphere. The sputum kept in the pocket, at the temperature of from 25° to 30° C soon becomes dry, and through friction rubbed to fine powder, and by subsequent use of the handkerchief by the patient himself is distributed through the atmosphere. The same applies to soiled bedclothes, shirts, etc.; in fact, Dr. Cornet, has been able to find bacilli in the dust of hospital wards, hotel rooms, private dwell-

ings, and prison cells in which phthisical patients have expectorated on the floor or in the pocket-handkerchief, while they were never found in rooms in which the spittoon had invariably been used. The prophylactic procedures based upon these observations are self-evident. All hygienic rules fall in importance far beneath the one axiom that sputum should be deposited only in spittoons, whether it come from a known phthisical individual or not. This may be attained by showing the phthisical patients that it is a means to their own protection; showing them that they otherwise are continually infecting themselves by taking new germs into their lungs. Therefore all dwelling-rooms, hospital wards, prisons, etc., should be furnished with spittoons and directions given that expectorated matter should be deposited in them. In several of the Berlin hospitals this rule is already in operation, and in these hospitals dust collected from rooms occupied by tubercular cases has been found to be absolutely free from bacilli. Where, as is the case in most of our large hospitals, it is not impossible, the contents of the spittoons should be rendered harmless by steam, while the spittoons themselves should always contain a little water. In case of death from tuberculosis, the dwelling-rooms should be thoroughly disinfected. The walls may be rubbed with freshly-baked bread,—a procedure proposed by Esmarch and based on scientific grounds. Bedding, carpets, etc., should likewise be well disinfected. So, also, in changing dwelling-places, even although they may not be known to have been occupied by tuberculous patients, they also should likewise be cleaned and purified. In hospitals, the separation of tuberculous patients from the other sick is desirable. Dr. Cornet believes that through the careful observation of these prophylactic principles, it will not be long before there will be a marked reduction in the spread of tuberculosis.

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DR. SCHMELK, of Christiana, has found vast colonies of bacteria in the ice in Jerstedalsbræ glacier. During periods of thaw they multiply with great rapidity.

## MISCELLANEOUS NOTES.

**THE TRUE RELATIONS OF FILTH TO DIPH-  
THERIA.**—Diphtheria is a contagious dis-  
ease. There is probably no spontaneous  
origin of diphtheria, any more than there  
is a spontaneous origin of cholera or scar-  
latina. When an attack of diphtheria has  
made its appearance, it is well enough to  
examine the hygienic condition of the  
house. *with its deteriorating influences on  
the general health of the inmates, and look  
after the source of the case in the persons  
of friends, attendants and help.* In my  
Remarks on the Nature and Treatment of  
Diphtheria, made by invitation before the  
Section of Diseases of Children of the  
British Medical Association, August, 1888  
(*British Medical Journal*, September 22,  
1888), there are found the following sen-  
tences: "*Foul air and sewer gas do not  
create diphtheria; they do create dysentery,  
and typhoid, or such a condition of general  
ill-health and malaise as to afford the  
diphtheritic virus a ready resting-place.*  
There were plenty of malodorous privies  
and foul smells fifty years ago, but no  
epidemic of diphtheria. Besides, and main-  
ly through the careful observations of  
English physicians, such as are contained  
in Dr. George Turner's report on diphtheria  
in lower animals and many others, the  
sources from which diphtheria may come  
are very many. Pigeons, fowls, turkeys,  
chickens, pheasants, cats, horses, sheep,  
cows, are just so many sources of diphtheria  
for man. Foods of all kinds, vegetables  
and milk will transmit it. It sticks to  
furniture, floors, and wall-paper, railroad  
cushions and school desks. No spontaneous  
generation is required to explain its ravages.—A. Jacobi, M. D., Archives of  
Pediatrics.

### GOOD AND BAD EFFECTS OF CYCLING.—

Cycling as a curative agent (says the *Medi-  
cal Record*) has a considerable future; it  
ought not to be taken up at too early an  
age; the so-called "bicycle back"—round  
stopping shoulders—is particularly liable  
to be produced in a growing lad who uses  
the bicycle too much; a convenient rule  
is to avoid recommending it till a lad has  
passed the age when the chief growth in  
height takes place. Dr. Jennings' book  
confirms the impression formed from ob-  
servation and the perusal of scattered  
notices in fugitive literature; that cycling  
is a form of exercise specially useful to  
men who are growing to be a little more  
than middle-aged. A man who has fol-  
lowed a sedentary occupation begins to  
experience increasing disinclination to  
exertion, chronic constipation with some

stiffness and it may be flying pains in the  
joints; for such a man a tricycle is cap-  
able of accomplishing a great deal; exer-  
cise ceases to be a trouble, the bowels  
become more regular, and the joint troubles  
which may be at first a little aggravated,  
disappear. Dr. Jennings believes that  
chronic gout and rheumatic gout may thus  
be cured, or at least kept at bay, even  
when the patient has been seriously cripl-  
ed by several attacks; he also speaks very  
confidently as to the cure of obesity, if the  
patient will refrain from gratifying the  
thirst, which is at first very trying.

**TO PURIFY THE BLOOD.** The Boston  
Journal of health gives the following  
good advice. Natural means are the best  
for doing this. To "physic" for this end  
—whether with the old-fashioned "sulphur  
and molasses," or root "beer," tonics or  
"blood-purifiers,"—is a mistake; as it is,  
also, to be bled, which, in cases of feeble-  
ness, may be absolutely dangerous. The  
way to purify the blood is, not by putting  
something into it or by draining it im-  
partially, but by taking out of it the im-  
pure substances which it contains. Nature  
has provided five organs for doing this—  
the lungs, skin, kidneys, liver, and bowels.  
The blood becomes impure for one, or  
both of two reasons: 1. Something impure  
has been put into it. 2. The five excretory  
organs just mentioned have not been suffi-  
ciently active. In the first case, alter your  
diet, eschewing pastry, "heavy" foods,  
and everything unhygienic. In both cases,  
set the excretory apparatus in full opera-  
tion. To do this for the lungs, take  
abundant exercise in the open air. The  
more vigorous this is, short of exhaustion,  
the better, for the quicker and deeper will  
be the respiration, and the greater will be  
the amount of impurity, in consequence,  
thrown off. Remember that a person  
walking at the rate of three miles an hour  
breathes three times as much air as if he  
were sitting still, and that on walking at  
the rate of four miles an hour, breathes five  
times as much as if he were sitting still,  
and that in more active exercise the bene-  
fit received is in proportion. To quicken  
the action of the skin, get up a good sweat.  
If robust take a Turkish or vapor bath every  
day for a while. The kidneys, liver, and  
bowels may be stimulated to full action by  
drinking hot water in abundance. No  
better means exists for accomplishing this  
end. Not only does it stimulate the organs  
just named, but it cleanses the stomach,  
liver, and kidneys, and the water, per-  
meating the whole body, drains impurities  
from it as it passes off by the pores. Thus,  
each means used assists the others, and the

entire treatment gains cumulative impetus thoroughly to do its work.

**IMPORTANT EXPERIENCE — CAUSES OF DYSENTERY & C.**—At a recent meeting of the New York Chirical Society, Dr. Briggs said (N. Y. Med. Jour.): He would give another excellent illustration of the relation of bacteria to intestinal diseases which had come under his notice during his service in the Almshouse Hospital on Blackwell's Island. During June and the first two weeks of July there had been an epidemic of dysentery among these adult patients, in which about a hundred cases had occurred and thirty deaths. He had been told that they always had dysentery there during the hot season. For that reason, apparently, nothing had been done toward preventing it. He had next discovered that the water-closet, or rather privy-vault, had not been cleaned out for a year, and at the time was four feet deep with semi-solid faecal matter, and that the outlet of the drain was almost choked with old clothes that had been thrown into the vault. He had had the vault emptied and cleaned, and thereafter flushed out daily, with the surprisingly good result of not having another case of fatal dysentery so long as these sanitary measures were kept up. In about ten days the disease had almost entirely disappeared. However, they had stopped flushing the vault, he had learned, after his term of service had expired, and in September dysentery had again appeared in the wards.

**GREAT VALUE OF THE GARDEN AS A RESTORATIVE.**—A writer in that handsome periodical, Vicks Magazine says: I have at least three personal acquaintances who owe much for renewed youth and new beauty of face and form gained by work in the garden. One is a woman of ample fortune, who loves her lawn, with its trees and vines and flowers as things of beauty. I doubt if the thought of health occurs to her, but the effect is patent to all her friends. Another is a lovely little woman who has been in ill health for years. This season, moving to a new home where friends and acquaintances were scarce, sheer loneliness drove her to her garden. There the needs of the growing things appealed to her, and day by day her visits were repeated, until at last all her morning hours were spent among them, planting, training, weeding, thinning and digging. The result is a renewal of health and strength unknown before for years, and new happiness and greater contentment. The third is a good woman whose sorrows

seemed piled mountain high through the loss by death within a few months of her husband and child and of property as well. Trained to no work as a girl she seemed helpless. But her little garden demanded attention, and her very losses compelled her to work with her hands. Here, too the soothing balm of pure air, exercise and occupation worked its marvels in recovering health, contentment and a spirit of self-helpfulness.

**IMPURE WINES.**—The following will apply as well to Canada as to "America" (From N. Y. Med. Times): There is a very good reason for the constantly increasing popularity of our American wines, especially claret, from the fact that their absolute purity when purchased from reliable houses can be taken for granted. The extent to which the adulteration of foreign wines is carried can be seen from the statement made by a correspondent of the *London Lancet* of the seizure by the police of 1,500 casks supposed to contain wine. On analysis the so-called wine was found to contain no grape juice whatever, but was made up of impure alcohol, water, a little glycerine, a Chilian coloring matter, a considerable amount of plaster-of-Paris and salt. This atrocious mixture was intended to finds its way to our tables as different varieties of Bordeaux. Moral—use Canadian wine.

**A CASE OF CONSUMPTION FROM CONTAGION.**—At the meeting of the Finnish Medical Society, at Helsingfors, Mr. Runeberg reported a case of consumption undoubtedly caused by contagion. The patient was a peasant, thirty-nine years of age, who had an untainted family history, and showed in his own constitution no tendency to phthisis. Two years ago he was in perfect health; but the symptoms appeared a little after the death of his wife from consumption. He had occupied the same bed and nursed her during an illness of several years.

**A CREMATORY IN DES MOINES, IOWA,** cost only \$1,700. As an indication of its effectiveness there was at one time recently burned in it, in one hour, two dead horses, seven dogs, eighteen barrels of garbage, three hods of manure, fifteen bushels of rotten eggs, and three barrels of rotten fish, and no offensive smell was emitted.

**A WRITER ON CONSUMPTION** Dr. L. F. Flick, says: Sufficient fresh a. sufficient food, and sufficient rest and sleep are the watch-dogs of health, and where they are on the alert consumption can never enter.

**SCENTED CAKE SUSPICIOUS.**—A practical baker says: if a cake is scented with something pleasing to the smell, you can make up your mind that cake was thus scented to kill the odor of bad materials. I have seen as many as six bad eggs put into a large cake. The scent used killed the smell. Tainted meat is also used by some conscienceless bakers in mince pies, where the high spicing and liquoring disguises the putridity.

**NEED OF ARM EXERCISE :**—Although there is no question as to walking being a very good exercise, there is much truth in the following (from Pop. Sci. News): Walking is a proper substitute for arm exertion. The reason is partially plain, since walking requires little attention, much less volition and separate discharges of force from the brain, than in the case with the great majority of arm movements. The arm-user is a higher animal than the leg-user. Arm motions are more nearly associated with mental action than leg movements. A man's lower limbs merely carry his higher centres to his foot or work. The latter must be executed with his arms and hands.

**VALUABLE CONTRIBUTION ON FILTERS.**—In an exhaustive paper on filters read at the New York Academy of Medicine, on the 5th, inst, Dr. Charles G. Currier gave the following summary of practical conclusions, after having quoted many high authorities and given in detail the history of his own experiments with Croton water: (1) Boiling sterilizes water and within thirty minutes will have killed harmful bacteria. (2) Drugs and other agents acting chemically if used in amounts which are safe, do not sterilize water. (3) The prolonged heat which water undergoes in the usual process of distillation destroys all germs which may be in the water undergoing the process. (4) Ordinary filters, even if satisfactory as strainers, fail to remove all bacteria from drinking-water. So far from lessening the number in the original water, the filtering substance may allow a more rapid multiplication than these micro-organisms would ordinarily undergo in the unfiltered water on standing, and the germs of disease, even if held back by the filtering substance, may be harbored in all filters. (5) The finer the substance through which the water passes, and the lower the pressure, the more perfect is the action of the filter in holding back the bacteria. (6) Of all substances thus far furnished for domestic filters, porous rebaked porcelain, carefully selected, I have found to be the best. If thick and strong enough to allow the use of a large surface, and the

substance remain perfect (without flaw or break), this may yield a fair flow of clear water free from all bacteria; yet under our ordinary Croton pressure of one atmosphere or less, this yield is only in rapid drops, unless the apparatus be complex. (7) To ensure the permanency of this action, the filter should be occasionally sterilized throughout, by steaming or by other means. For, under prolonged pressure, various kinds of bacteria can go through, and in the copious organic matter collected on the filter some harmful micro-organisms can retain a high degree of vitality, for weeks longer than I have ever found them to live in pure water. (8) Where filtering is really necessary, it is in general best for the community that it be done carefully on a large scale through sandbeds upon which a fine layer of organic and inorganic matter is expressly produced by sedimentation, because of its valuable action in holding back the great majority of the bacteria. (9) A bad water filtered is less desirable than a pure water in its natural state. When, therefore, filtration is employed because of real danger of infection, the filtered water should, as a rule, be furthermore boiled, as the entire absence of sediment and cloudiness does not insure that the bacteria of disease may not have made their way through the filter.

THE absence of good sanitary administration in Italy permits the occurrence of nearly 300,000 cases of typhoid fever annually, with 27,000 fatal cases. In some districts more than three per cent. of the population die of this disease.

**FACTS ABOUT CORN.**—A bushel of corn makes four gallons of whiskey. It sells for \$16 at retail. The Government gets \$3.60, the farmer 49 cents, the railroad \$1, the manufacturer \$1, the vendor \$7, and the drinkers all that is left,—delirium tremens.

**MOSES AND OTHER DOCTORS** was the subject of the annual address to the public and the profession, by Dr. W. T. Walker, of Lynchburg, Va., which went to show that preventive medicine was not only the medicine of the future, as was being maintained, but had been the medicine of the past.

It is very necessary, says Good Health, after sweeping, to wash out the throat and nostrils with warm water. One would better let the face and hands go without washing in this case than let the nasty dust be absorbed by the delicate lining of these organs.

## THE PROPOSED DOMINION HEALTH DEPARTMENT.

On March the 11th last, Dr. Roome, M.P., gave notice of the following resolution in the House of Commons: "That in the opinion of this House, the time has come when the Federal Government should establish a central Board of Health, with a responsible head, for the purpose of educating the people in health matters, preventing the spread of disease, and perfecting, as far as possible, the return of vital statistics."

The question of a Dominion Health Centre had been discussed considerably during the earlier part of the session, by most of the medical members of the House, but the session was nearly half over before Dr. Roome fully decided to move in the matter and bring the subject before the House. Then before the motion could come up for consideration, so many other motions having been previously on the list, the session was drawing near to a close, and although a number of the medical members had in a manner organized, laid out plans and were prepared to press fully the necessity of a Federal Health Organization upon the House, as any new measure brought in near the last of the session, when the desire of the members is strong to get through with the work and return home, rarely receives due attention from the members, it was at length wisely decided to give the proposed movement the best chance of being well received by the House, and accordingly it was put off till the beginning of next session, when it will doubtless be brought up early.

It is, we understand, the intention of medical members, on both sides of the House, to press for a Department of Health and to endeavor to have placed under its control all subjects which relate directly to the public health: such as a system of health statistics (including besides the mortuary returns, not from the entire Dominion but from a large number of centres—A system of reports on prevailing diseases, epidemics, &c.)—as a basis—the quarantines, adulteration of foods, diseases of domestic animals, the sanitary requirements of the dairy interests, &c. As indicated in Dr. Roome's resolution, the Department as proposed would be largely of an educational character, and would leave coercive measures, for the most part if not wholly, as at present, in the hands of the municipalities

and provinces. A Hygienic Laboratory for investigating into the causes and origin of disease would be an essential of such a Department. Indeed this is much needed in connection with the chief analysts branch of the Inland Revenue Department.

Although in Dr. Roome's motion, the words "Board of Health" are used, it is not, it appears, intended that the organization shall partake of the nature of a board, but that there shall be an Advisory Committee associated with the Department.

Never before, we believe, has there been such a feeling aroused among the medical members of Parliament as to the necessity for some central, responsible body to look after the health interests of the Dominion. Much good will doubtless eventually come as the result of this movement, and the public are to be congratulated upon Dr. Roome's action, and upon the fact too that there is apparently entire unanimity amongst the medical members of the House in relation to it. We believe Dr. Roome will be backed up by the strength of the profession in the Commons and later, by that of the Senate, which is far from inconsiderable; while we have no doubt that the profession throughout the Dominion will give all possible encouragement and aid to the good work.

THE LABOR COMMISSION has completed its work, it appears, and has no doubt laid a foundation for some useful future Legislation. It touched upon the health of working men, but only very briefly. It can hardly be that the Commissioners were fully familiar with the efforts being made in Great Britain for promoting the health of the masses of the people or they would have laid greater stress on this first essential of the working man—health—and given more consideration to the importance and means of promoting this "poor man's capital." Pure air being the first essential of health, it is of the first importance that every family be provided with such a dwelling place and surroundings as shall secure to the occupants of the dwelling pure air always, and in abundance. As an illustration of the value of such dwellings, we may point to a recent report relating to industrial dwellings in London, Eng. In 209 of such tenements, with a population of 1,021 souls, the death rate last year had been only 7.9 per

1,000, as against the general rate of the whole of London, 1877, and probably in many tenement localities, of 25 to 30 per 1,000. The sick rate was doubtless in proportion, or as is common, in one sense, less than proportionate; for when the death-rate is reduced, the sick rate falls in a still greater degree, as one can readily understand. Pure water and pure, wholesome food are almost as essential to health as pure air; while some protection from the infection of epidemic diseases is indispensable. Some means might properly have been suggested by the Commission for educating the working people in the methods and rules of preserving the health and vigor of themselves and their families.

THE ANTI-POVERTY SOCIETIES appear to overlook sickness—sickness largely owing to ignorance of sanitary rules and necessities—as a cause of poverty. Mr. Henry George, the political economy lecturer, does not commonly emphasize, if indeed alludes to, the potency of sickness in the production and maintenance of poverty. In this land of plenty and good wages, there need be no poverty among the healthy. As the Monthly Bulletin of the Iowa Board of Health, gives it, a man who is in good health, and whose family is similarly fortunate, whatever theory of taxation prevails, can keep his family in comfortable clothing and healthy food, and purchase for them a good many luxuries. Should he, however, be sick or any of his family dangerously so, work and wages not only cease, but there are super-added medical attendance, medicine, nurses, and the many items incidental to sickness and sepulture. Mr. George and all labor reformers and political economists fail greatly when they do not emphasize the importance of sickness as a factor in the production of poverty. PUBLIC HEALTH IS INDEED PUBLIC WEALTH.

MAN IS THE MOST PRECIOUS CAPITAL of a country and of society. Every individual represents a certain value, usually estimated at an average of \$1,000. As the late Prince Rudolph said at the opening of the Vienna Sanitary Congress, "To preserve this value as intact as possible to its furthest limit is not only a command of humanity, but also the duty of every community in its own interests." Is it not then the first duty of the government of a country, not of the government of a portion of the country or of certain portions of it, but of the chief government of the whole, to look after this capital? To provide means for the promotion of health as

universal as possible? To educate, foster and encourage in every legitimate way every community in the country to look first after this most precious capital of the country? No government is fulfilling fully its duties who neglects this, really the most important function of a government.

EDUCATION is now generally believed to be of more importance than coercion. An education, for example, including the following incidents, which the entire public should have been long ago made fully acquainted with, when many would doubtless have been benefitted and preserved from disease from knowing the facts. According to Dr. W. A. Shufeldt, of Knowlton, Que., we believe, in the Medical Record, gives the following instances from his own observation: In the small village of Fulford, a French working man from a neighboring town, after a few days' illness, died of typhoid fever. Situated near the house, and on the lower level, was the spring from which the neighboring families obtained their water supply. Three well-marked cases of typhoid took place soon afterwards in the families using the water, and five milder cases of fever, all, no doubt, due to the contamination of the spring with the excretions from the house above it. No other case occurred in the village, and the epidemic died out soon after the closure of the spring.

IN ANOTHER CASE, on the same authority: In December, 1886, at St. John's, Que., a case of fever occurred in an old barracks a short distance above the town. The water supply for the town was taken from the river just below the barracks. A month later there were thirty well marked cases, and no less than one hundred others were suffering from fever of a continued type. The fever was most effectually stamped out by ordering families to boil both water and milk for drinking purposes. No cases occurred in the town of Iberville, which is situated on the opposite bank of the river, and using a different water supply. Malarial fevers are unknown in the locality.

A MINISTER OF PUBLIC HEALTH is now virtually established in France. The Sanitary Department was formerly attached to the Ministry of Commerce; natural enough, when French Sanitation was confined to enforcing measures for preventing the propagation of epizootic diseases. This connection has recently been

severed, and the Sanitary Department has been attached to the Assistance-Publique of France. M. Monod ( whose reputation as an enlightened sanitarian is established throughout Europe) has been nominated by presidential decree, director of the two services, with the title of the Director of the Health Service. It would be well and profitable, if Canada were to set the next example in this regard.

MENTAL DEPRESSION, as the N.Y. Medical Journal says, is a functional disorder. Melancholia, according to Broadbent, is in many cases an aggravation of mental depression, and often both may be due to the same cause. In the "Practitioner" a few months ago, Dr. Haig considered the relation of mental depression to the excretion to uric acid. "A certain form of headache bears a close relation to such excretion and the author's researches concerning headache have shown him that mental depression and its opposite condition of well being and exaltation are also dependent upon the amount of uric acid in the blood. Variation of this amount may produce or put an end to the headache; and in like manner, mental depression or the joy of living may be called into existence. The amount of this acid required to produce headache is probably greater than that which causes depression, irritability, or simply that undesirable state known as being on bad terms with one's self. The Journal discusses the uric acid condition in a most lucid manner, and gives a dietary for persons disposed to it, which we purpose alluding to further on a future occasion.

ON THE SPIRITUAL EFFECTS OF PAIN, an address was recently delivered to the students in a London hospital, by the Rev. Edward White. The lecture included many suggestions well worthy of much consideration by every man and woman. Starting with the proposition (Brit. Med. Jr., Mar. 30) that the human capacity for enjoyment necessarily involves that for specific suffering, he urges that, from the scheme of the Everlasting Cause, suffering cannot be excluded, but is a consistent extension of a method of government which is uniform. Mere Almighty benevolence is the mildest of all notions of an Eternal Power. "The glory and force of ancient Judaism consisted of its assertion of Almighty Love, whose plan of creation admitted of educational suffering, and of a redeeming energy ever crushing out the moral evil which is in the world." Educational pain, poena, penalty, as we all un-

derstand—no thinking medical man could spare from any scheme of moral government. But now comes the question, how far are we to go in eliminating pain, as seems the direction of our modern methods of education? Savage nations inflict tortures on their young men to teach them endurance, and there is no question that most of our liberties and highest privileges have been won in the past by fortitude learned in the school of suffering; "a school which in this age of comfort and coddling, seems in danger of closing its doors for want of pupils.

TWO QUESTIONS of a simple and practical nature about our modern anesthetics, the lecturer asks in conclusion. One, does not their use in war tend to remove one of the restraints in the statesmen who control the policy of warlike nations? The other, are not the women who have given birth in labor under chloroform, and have never felt the martyrdom of prolonged parturition, to some extent deficient in the great and lifelong love which was the product of the "perilous birth?" He thinks they are, and he gives cases in point. He says that "Truth is ever bipolar, and softens as well as toughens," and he illustrates the maxim by examples of the beautiful tenderness learned in the seminary of physical and mental anguish, which can readily be confirmed by experience of most medical practitioners.

THE DECAY OF MANLINESS, is the heading of a communication in the last number of the British Medical Journal, by Dr. N Stevenson. He writes: I have lately been much struck with what I think is a symptom of want of tone in physical courage, due, I suppose, partly to coddle, the natural result of luxury. People are encouraged to suffer no hurt, or even the slightest inconvenience, that can by any manner or means be avoided, and so, when necessary troubles or pains have to be endured, there is no normal courage to face them. Advice is too often given to insist on anesthetics for every, even for the most trivial, operation, such as the extraction of temporary teeth, or loose roots, etc. All such ought to be endured patiently, because of the false impression that a dreadful agony has been prevented by the anesthesia. This false fear too often leads to the abandonment of every healthy effort to courageous endurance, and to the development of a cowardly disposition.

BEWARE of impure ice. One should never drink water or anything else in which ice has been

dissolved. "Patent ice pitchers" may now be had in which the ice cannot dissolve in the water. Bacteria are not destroyed by temperatures as low as the freezing point. At a temperature of 32° to 39° F. bacteria become dormant and are incapable of propagation, but they retain their vitality. Experiments have shown that bacteria exposed to a temperature far below zero have, upon being warmed to 43°-54° F., been able to resume all their normal functions. It is therefore certain that ice frozen naturally or made by artificial process from ordinary water may contain bacteria and germs. Dr. Carl Fraenkel of the Hygienic Institute in Berlin has made some observations in this direction which have been published in the *Zeitschrift fuer Hygiene*. Dr. Bischoff of Berlin has also made chemical and microscopical examinations of the various kinds of ice, natural as well as artificial, for sale in Berlin. Many of the samples of ice thus examined were found to be as impure and unfit for use as the most impure and unwholesome drinking water. While great care is sometimes observed in the selection of drinking water, it is most astonishing how little thought or care is bestowed upon the more dangerous impurities contained in ice. The German government ordered Dr. Robt Koch to make an official investigation. It was thus conclusively shown that freezing did not destroy the bacteria. American experiments have fully corroborated the best European authorities.

UNVENTILATED railroad cars are a common source of severe colds, and worse, and dangerous trouble. The editor of the *New York Medical Times* writes thus: There is a legal punishment for the man who leaves the door of an elevator open if a passenger, unconscious of danger, plunges through it to death or serious injury, and a legal punishment also to the engineer of a fast moving train who through neglect of the signals wrecks his train and injures or destroys human life, but there seems to be no penalty for railroad officials who permit their passenger cars to be so overheated and poorly ventilated that marked discomfort and frequently sickness and death are often the penalty of a lengthy journey. A few weeks ago we were called in consultation to a neighboring town, and before we had half passed the twenty miles of our journey the air was so impure and the heat so intolerable as to produce faintness. The thermometer stood at eighty-six. We re-

turned on the same train and found all the ventilators closed and the thermometer standing at eighty-four. The patient we had just visited, a man of large wealth and widely extended influence for good, was dying of double pneumonia contracted by going from those overheated, badly ventilated cars into the cold air. On a very cold night last winter we were obliged to visit Albany, and, entering a drawing-room car, threw off the overcoat and sat down to a cosy chat with a friend. Pretty soon there came a shiver and the overcoat was resumed. By the time we reached Peckskill the whole body was in a shiver, and as the conductor passed through the car we asked him in regard to the steam. He put his hand to the pipes and found them perfectly cold. John had only forgotten to turn on the steam. And so it goes on to death.

STRONG EVIDENCE of the Intercommunicability of Tuberculosis between mankind and the bovine race is given in the *British Medical Journal* of March 16, 1889. At the International Medical Congress of Australia, held in January last, Dr. McLaurin, President of the Board of Health of Sydney, in an address, gave the following important evidence in relation to the probability of Tuberculosis being communicable from animals to man: After stating that the mortality from consumption in the cities there was 1-30 per 1,000 of the population per annum (a very high rate), said: "Consumption has got a footing amongst us and is now one of our most important causes of death. There is a good deal of trafficking in tuberculous cattle in New South Wales, for both slaughtering and dairy purposes. A law is urgently required making it penal to traffic in deceased animals. Among the Jewish population of New South Wales, numbering 4,000 persons, in three years there was but one death from consumption. Taking the average of that colony, the expected deaths in the 4,000 persons would have been 13.68: and as the Jews live chiefly in the cities we might expect the mortality to be higher. The result is largely due to the avoidance of tuberculous meat."

DR. BERNARDO, the energetic provider of "Homes for Destitute Children," is doing a great deal of good for the children, which is a very important consideration indeed. But no doubt a good deal of over-sight should be exercised, with regard to the waifs, before they are allowed to mingle with other children. It can



hardly be otherwise than that many of these boys and girls are diseased, physically and morally, and require much education and treatment before they can form fit society for the healthy and good. Dr. Bernardo writes: "On Thursday, 28th March, our First Emigration Party for the current year, consisting of 226 Trained Boys and Lads, sailed from Liverpool in the Peruvian for Montreal, on their way to Canada as their future Home. One hundred and thirty of these, that is more than half the whole number, were actually taken from the streets for admission into the Homes." How long were they in the Homes and what process did they undergo before being shipped to Canada, are important questions for Canadians to have satisfactorily answered.

MILK SCARLATINA is a subject which is receiving a good deal of attention. At the last meeting of the Glasgow Philosophical Society, Dr. Carmichael communicated the results of experiments carried on by him in connection with the outbreak of Scarlet fever at Garnethill, Glasgow, last year. (*Brit. Med. J.*, Apr. 13). This epidemic was clearly traced to the milk of a certain farm, where were found two cows with ulcers and scabs upon their teats, similar to those described in connection with the Hendon outbreak. Both cows were desquamating freely. A calf fed on the milk of one was seized with a febrile disease, which nearly proved fatal, and which was followed by desquamation of the epidermis and of the hair. From a sample of the milk, Dr. Carmichael obtained a creamy looking mass, which consisted of micrococci, each the 40,000th of an inch in diameter, and similar organisms were found in the blood of the calf. By lime light good photographs of the organisms were obtained.

DR. RUSSELL, medical officer of Glasgow, at the same meeting, remarked that, on the medical side, there had been no hesitation in accepting Klein's case as one of a high degree of probability; but the difficulty was to get veterinary surgeons to look upon this as a matter worthy of consideration. It required some courage to speak in the presence of farmers and dairymaids of scarlatina being propagated from the cow to human beings. If scarlet fever originated in the cow, it originated in one or other of the numerous lesions to which the teats of the cow were subject, and, until it was definitely ascertained which of them was the infectious one,

the farming class should avoid using the milk of all cows suffering with such lesions.

THE *British Medical Journal*, referring to the auxiliary investigations described in the Annual Report of the Medical Officer of the Local Government Board, says: The most voluminous and important are those in which Dr. Klein continues his account of the researches into the alleged association between a certain form of cow-disease and scarlatina. It will be generally admitted that by the evidence here brought forward he has powerfully supported the view which he enunciated in previous reports. He describes six experiments on cows which had calved three or four weeks previously. In four cases he used subcultures, on solid media, of streptococcus obtained from the blood or pericardial fluid of a calf experimentally infected with human "streptococcus scarlatinae;" in two cases subcultures of the streptococcus derived directly from human scarlet fever. Each animal was inoculated by subcutaneous injection at the root of the ear. In all the six cases the animals developed ulcers on the teats; several of the animals had considerable fever and constitutional disturbance.

DR. KLEIN believes these ulcers to be among the very earliest evidence of disease in the animal. They occurred indifferently, whether the cow was milked by hand or was suckling her calf. The teat-sores showed themselves after an incubation period of from four to nine days from the inoculation; and subsequently a more general affection of the skin was found, accompanied by more or less febrile disturbance, and sometimes by pulmonary symptoms. In two of the experiments, the streptococcus were recovered from the milk; in one case the milk was drawn with antiseptic precautions during life, in the other it was obtained by incision after death from the deeper parts of the udder.

DR. BUCHANAN, in his comments on the reports, lays stress on the fact that the sores on the teats appeared to be with difficulty, if at all transmissible by direct inoculation from the infected animal to man. "This circumstance," he writes "was hardly perhaps to be anticipated, seeing how readily other sore-teat diseases are so communicable, and how readily cow-scarlatina at Hendon produced itself as human scarlatina in the consumers of milk from infected cows."

THE "SPARE BED," which has probably upon times been the beginning of disease and death to unsuspecting victims, comes in for a rather funny "discourse" in "Golden Rule." "When I go out into the country to visit my relatives, the spare bed rises up before my imagination days before I start, and I shiver as I remember how cold and gravelike the sheets are. I put off the visit as long as possible, solely on account of that spare bed. I don't like to tell them that I would rather sleep on a picket fence than to enter that spare room and creep into that bed, and so they know nothing of my sufferings. . . . The bed is as square and true as if it had been made up to a carpenter's rule. No matter whether it be summer or winter the bed is like ice, and it sinks down in a way to make one shiver. The sheets are slipperly clean, the pillow-slips rustle like shrouds, and one dare not stretch his leg down for fear of kicking against a tombstone. "Ugh! shake me down on the kitchen floor, let me sleep on the hay mow, on a lounge, stand up in a corner, anywhere but in a spare bed! One sinks down until he is lost in the hollow, and foot by foot the prim bed-posts vanish from sight. Did anyone ever pass a comfortable night in the spare bed?"

CONSUMPTIVE TRAVELERS are now at length properly receiving attention. In an article in the Australian Medical Gazette, by Mr. G. R. Macmullen, barrister-at-law, the writer calls attention to the possibility of contracting consumption from an invalid companion during the voyage. The writer supposes the case of a healthy man who secures a berth in a cabin in a steamer or sailing ship bound, say from London to Australia. He goes on board, settles down, and finds that luck has associated him for the voyage with a highly consumptive individual. The cabin is most likely very small. Naturally enough the consumptive man will have a considerable dread of ventilation, at least such an amount of it as a healthy man would desire; and so at the very outset, the healthy and ailing find their wishes not in accord.

AS A REMEDY Mr. Macmullen suggests some such regulations as the following: In the first place, all intending passengers should, on booking, be able to produce to the shipping agents (who should under penalty insist on its production) a medical certificate stating that the intending passenger is in good health, or if not so the nature of his or her ailment. Secondly,

the medical officer in charge of the ship should have the power to remove a passenger into the ship's hospital, which, in view of such contingency, would be properly fitted up for the reception of patients. When a passenger occupies a whole cabin the rules could be relaxed. This would be no hardship to the patient, but a positive benefit, and would result in general convenience and satisfaction.

ONE OF THE MANY DANGERS resulting from keeping dogs in dwelling houses is a risk of disseminating the ova of the *tænia echinococcus*. The possibility of the transmission of this dangerous parasite, says the N. Y. Medical Times, is too generally overlooked, but if the dog plays with the children, the latter often allow themselves to be licked, and in this way the ova may be transferred. In dry weather the ova may be wafted about by the wind, also find their way into the body. In Iceland where every body possesses half a dozen dogs, 28 per cent. of which are affected with this *tænia*, hydatid cysts are very common. As the process of development is a slow one, the source of infection may and probably will, escape attention, and in any case would only be thought of when the evil had been done.

IN THE MANAGEMENT OF NASAL DISCHARGE.—Dr. Daniel, of Washington, D. C., suggests in the Medical World, that a little patience is better for the irritated mucous membrane than the habit of 'blowing out' the uneasy organ at all times, and especially in cold, windy or dusty places. The mucus serves the membrane as a defence against increased irritation from cold, dust, gases, &c. The usual diminution of nasal discharge during sleep may be partly due to the relapse of the pocket-handkerchief into 'innocuous desuetude.'

IN BUCCAL BACTERIOLOGY, an exchange says, Dr. Miller, one of the greatest living authorities finds that by using the following mixture he can completely sterilize the mouth, cavities in carious teeth, etc. Thymol, 4 grains, benzoic acid, 45 grains; tincture eucalyptus, 3½ fluid drachms, water 25 fluid ounces. The mouth is to be well rinsed with the mixture, especially just before going to bed, since most of the damage by fermentative and putrefactive processes in the mouth is done at night during sleep.

MOSQUITOS and other insects may be kept away from their would-be victims by weak carbolic acid solution. According to the Lancet,

weak carbolic acid sponged on the skin and hair, and in some cases the clothing, will drive away the whole tribe. The safest plan is to keep a saturated solution of the acid; which can not contain more than six or seven per cent. This may be added to water until the latter smells strongly. This may readily and with perfect safety be applied with either a sponge or an atomizer, and sprinkled on curtains, bedding, &c. No doubt that horses and cattle may be protected in the same way.

A SWISS CURE FOR A FRESH COLD is given in the N. Y. Medical Journal, as follows: In-to a jug half filled with boiling water put a drachm of powdered camphor; over it place a funnel shaped paper from which the apex has been torn off so as to admit the nose. The camphorated steam may thus be drawn in through the nares for ten or fifteen minutes. Any coryza, it is maintained, however severe, will yield to three such applications.

FOR LEAKY DRAINS, an exchange notes a variation of a well-known pepperment test. An infusion of valerian poured down the vent-pipe, and a cat given the run of the rooms and passages where any escape might reach. Pussy located three leaks and came near uncovering them, too, in her eagerness to reach the source of the, to her, attractive odor.

VACCINATION during the incubation period of smallpox has given, it is reported, gratifying results, preventing or greatly modifying the eruption. The contrary view is unsupported by facts and not tenable, says the N. Y. Medical times.

BOILS and felons are said to be aborted in twenty-four hours by the application of a thick layer of ointment of nitrate of mercury, covering the whole with adhesive plaster. The risk of any constitutional effect would be so slight as to be hardly worth considering.

BOILED MILK has a flavor that many people do not like, but use usually soon creates a liking for it. It is said that every morning, when the German housewife receives her quart of milk, she immediately places it over the fire and brings it to a brisk boil.

AN Albany doctor asserts that he has never seen a case of cancer among the Hebrews, which circumstance he attributes to the fact that these people abstain from the use of pork. Rather we judge it may be attributed to their general hygienic habits. Is cancer common among that large class of lumbering and laboring people who eat a great deal of pork? We think not, but rare; and more common in those whose diet is more luxurious.

A CASE is reported (American Lancet) in which three hostlers have died from glanders contracted from a horse suffering with the disease, although the nature of the malady in the horse was not discovered until after its death.

IN SELECTING GARDEN SEEDS, we would advise our readers to ask for "Vicks Seeds." With us they never fail. We have grown now for a number of years in our garden, most delicious corn and peas, the corn continuing green for ten weeks in succession, by planting three sorts, and we always use Vicks seeds. His flower seeds, too, have in our hands proved very successful.

## NOTES ON CURRENT LITERATURE

IN THE POPULAR SCIENCE MONTHLY for April, that most fascinating and inspiring branch of science, the study of the human mind, receives chief attention. The number opens with a paper on "The Psychology of Spiritualism," by Prof. Joseph Jastrow, who, besides relating enough cases to convince almost any one that spiritualistic manifestations are nothing but fraud and delusion, also explains how the human mind allows itself to be so grossly deceived as it is in the dupes of the mediums. In "Science and 'Christian Science'" Mr. F. A. Fernald gives a judical view of the mind-cure, reaching the conclusion that this scheme of healing contains a little valuable truth hidden in a large mass of error.

IN THE ILLUSTRATED LONDON NEWS, some very good things have been recently given in Our Note Book. We obtain from this admirable weekly, much valuable, general information, besides the attractive and instructive illustrations. The wonder is, how such a weekly can be published at so low a price.

THE CENTURY MAGAZINE for April is truly a "Centennial Number," which must be highly interesting to all on the other side of the lakes, our readers amongst others, while many in Canada will doubtless be much interested in the many historical features it presents. Other good parts are "The Russian Police;" "Italian Old Masters;" "A Jest of Faith;" and "Sixty and Six; or a Fountain of Youth."

ST. NICHOLAS for May has just reached our table. It is a true "May" number, and "The Brownies" have commenced work in the "Brownies' Garden." It is a very good number and the funny parts are, besides the above named, "Cuff the orphan Bear Cub," and "A Lost Opportunity."