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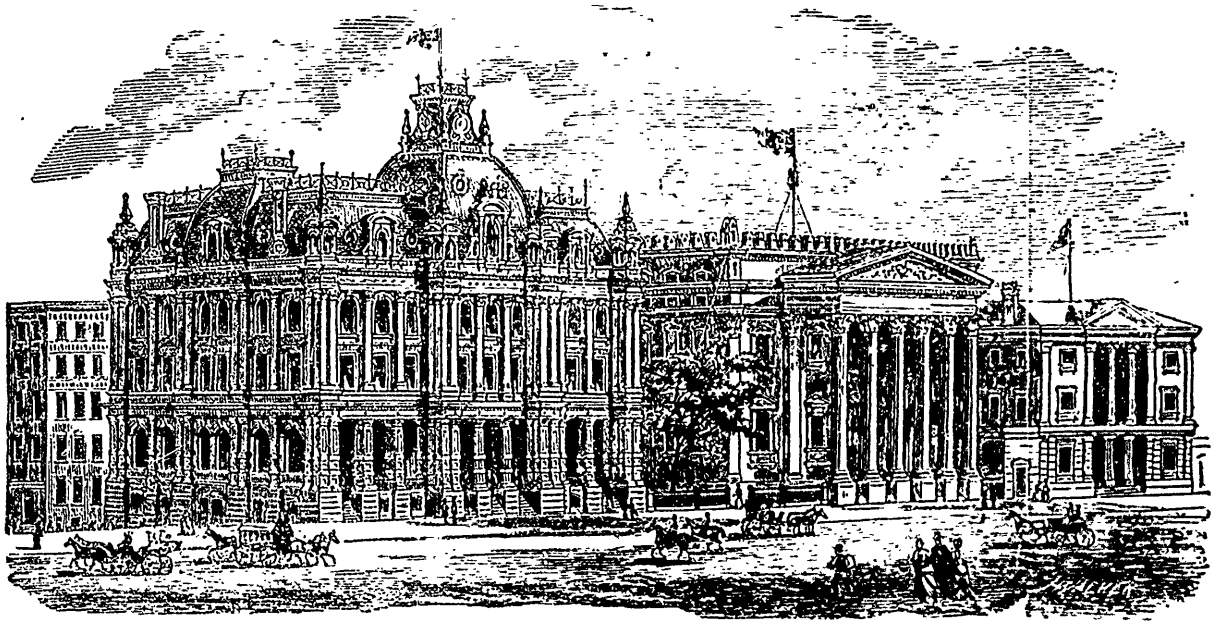

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THE RECHABITES AND THE ODDFELLOWS.

BY S. U. M.

The scientific man has only one object—the discovery of truth and its application to the happiness of mankind and the relief of suffering. There is nothing so humble that he disdains to study it, nothing so vast that he fears to grapple with it. He knows nothing of the petty distinctions separating parties and nations, but longing to clear up the obscure, to make certain the uncertain, he toils with loving patience, convinced that good must come from his labors, and that, whether the fate of Galileo, or the applause of friends and countrymen awaits him, all will one day be well, and his character will be cleared from suspicion. Anything that can be proved to be a scientific fact must be deserving of attention and acceptation. Neither religion nor morality can suffer in the long run from more knowledge. Science and religion are never opposed, and the immutable principles of right and wrong are unaffected by the dicta of priests, or the fanaticism of so-called discoverers and inventors. All knowledge is good, and since the devout student of science labors to add to what man knows, he must be toiling for the happiness and enlightenment of mankind. To blame the discoverer, because his labors seem to our weak judgment to endanger the foundation on which religion rests, is to show distrust of God and man. Is

it possible that any band of men, claiming for themselves authority as the leaders of their countrymen in great philanthropic or religious movements, can so lose their presence of mind and their reliance on the King of kings, the destined Judge of all, as to clamor that scientific investigators are undermining the peace of mankind, covertly attacking the strongholds of religion and morality, and pandering to the depraved passions of the baser sort of men? Impossible. Let us have trust in one another and faith in God. Let the minister of the Gospel take the glad tidings of peace to the pallet of the humblest penitent as to the luxurious couch of the opulent. Let him, however, reverence as a brother the man who in his study is investigating the perfect works of God, and in his way trying to make the world happier, purer, and wiser.

The position of the man of science is difficult. His dislike of the strife of parties, and his objection to committing himself to unguarded statements, apparently lay him open to charges of indecision and half-heartedness. But with him the interests of truth are above those of party, and he meekly bows his head to the storm of reproaches assailing him. The well-trained scientific man becomes a bad partizan, for he demands proof, not assertion, and when uncertain what course to take, what opinion to adopt, suspends judgment, and patiently waits till that light comes which must sooner or later dawn. His eager companions meanwhile plunge madly on, losing themselves in the darkness and wandering from the path, and, when they discover their mistake, have to retrace their footsteps with pain and humiliation.

Further than his premises will warrant, the scientific man refuses to carry his conclusions. He knows that, having to do with demonstrable truth, patience and labor will one day make everything certain. Not so with debateable truth, where the strife of parties and the unsupported dicta of hostile leaders may long interpose obstacles in the path of the seeker or rather guesser after truth.

The medical profession, though practising an art as well as a science, is sufficiently tinctured with scientific training to rise superior to the hostility of parties, and to know no distinctions

of creed or race. When the physician places himself by the side of the sufferer and proffers the aid of medicine, he does not ask whether his client is rich or poor, whether he believes or disbelieves such and such opinions. It is enough that suffering can be relieved and sorrow lightened, and in the spirit of Him whose sweet compassion was extended to all mankind, and whose assistance was gladly given to all who claimed it, he knows that he most faithfully copies his great Exemplar when, asking no questions, he unobtrusively and mercifully relieves the sufferer. It is not even considered that he is allowed to distress his client by introducing topics of enquiry that may arouse agitation or depression of spirits; his duty is to cure the sick, to prolong life; others must alarm the conscience, and warn of evil ways and wasted opportunities.

In that spirit, knowing no distinctions of kin, party, or creed, I lay before my readers some figures that, with long delay and considerable trouble, I have been enabled to obtain. These returns deal, I regret to say, with an unpopular subject, one that, from causes scarcely worthy of mention, has been removed from the field of medical discussion, and relegated to the teetotal platform. But, relying on the proved generosity of scientific and medical investigators, I ask them to banish from their minds considerations of a party nature, and carefully to weigh the following figures. The medical profession has repeatedly objected to the strong statements of temperance advocates, and has refused to listen to appeals and assertions tinctured, it was thought, by prejudice, and to statistics unfairly put together. This article has nothing to do with the expediency of teetotalism or the greater wisdom of the moderate use of alcohol; it only attempts to give facts and figures above question, and to leave to the reader the easy task of drawing conclusions from them.

The circumstances that led me to attempt these calculations are easily explained. Having, on many occasions, heard temperance speakers accuse the medical profession of persistently and unwarrantably refusing to accept as proved the expediency of total abstinence, and having heard it assumed by them that carefully compiled statistics had often been published that ought

to be convincing to any medical practitioner, I determined to study some of these papers and statistics. I accordingly wrote to many eminent teetotalers, and in due course received pamphlets, reports, and lectures in sufficient numbers to make me expect that the required information was forthcoming. This turned out not to be the case. Those figures and statements, bearing on the point, were either unsupported by evidence, or were not available for purposes of comparison. I was as unfortunate in my attempts to get information of the annual amount of sickness and death among its members from some large non-temperance society. When I at last obtained returns available for my purpose, I found to my astonishment that comparisons on a large scale had either never been attempted, or were from various causes still almost impossible. To give an example of the difficulties with which I had to grapple it will be sufficient to mention that, after I had been favored by the principal officials of the Rechabite Friendly Society with returns, and had compared them with some of the statements in Dr. Parkes's classical work—Practical Hygiene—a friend pointed out that Dr. Parkes usually so accurate and careful, had, probably without due enquiry, accepted figures that were incorrect. Dr. Parkes mentions that the annual amount of sickness among the members of friendly societies, between twenty and thirty years old, is 5.84 days a-piece, and among members under forty years old seven days per member. Under thirty years old sixteen per thousand, and under forty years of age 19.2 per thousand would constantly be ill. When I compared these statements, evidently intended to apply to all friendly societies, temperance and non-temperance, with those I had received from the Rechabites I found to my surprise that they were more favorable than the returns of the latter—a society which from its constitution cannot suffer from epidemics of sickness caused by intemperance. Hence it would appear as though the mortality among non-temperance societies is lower than in temperance ones, I was consequently not a little surprised when, subsequently, having obtained returns from a non-temperance society with over 500,000 members, and therefore large enough to be exempt from inaccuracies due to local epide-

mics, the sickness in five years, among members from twenty-six to thirty-one years of age, averaged 8.173 days annually, and the yearly average, for five years, among the members from thirty-six to forty-one years old, was 10.809 days of sickness a-piece. I determined to begin at the beginning, to go over all the calculations myself; and to use for the purpose the returns, which the courtesy of Mr. Thomas Cunliffe, of Bolton, the distinguished Deputy Chief Ruler, and Mr. Robert Hunter, of Manchester, the principal secretary of the Rechabites, had placed at my disposal. Unfortunately, even these figures are in some respects incomplete; but for this ample allowance has been made in the following remarks and summaries. All foreign sub-divisions of the order, as well as those home districts, the information from which is not sufficiently complete to answer my purpose, are excluded. The returns from the Rechabites I have compared with those of the Oddfellows, a large non-temperance benefit society.

The Rechabites, as some of my readers are probably aware, are a friendly society numbering 30,000 members, all pledged abstainers from intoxicating drinks. One of their most singular features is that they issue a monthly magazine of respectable literary pretensions. Few sick societies are as successfully and economically managed, and, unless I have been grossly misinformed, not one shows a better balance sheet. On these points, however, from want of knowledge of the management of sick clubs, I am incompetent to speak on my own authority; my information comes from friends, in whom I have implicit confidence. For all practical purposes the one essential respect in which the Rechabites differ from the members of other friendly societies is that the former are without exception teetotalers, while many of the latter are not. The Rechabites are not exposed to epidemics of sickness nor to accidental deaths from drunkenness, while general or non-temperance friendly societies undoubtedly are. Rechabites who cease to be abstainers cut themselves off, *ipso facto*, from the benefits of the society.

My object is this—to lay before my readers the grand totals of this society, and those of them who are medical practitioners and have a practical knowledge of sick clubs, which I am not

sorry to add I do not possess, will at a glance notice whether the percentage of illness and of deaths is smaller than usual.

In those districts from which complete returns have been obtained, there are 16,269 members: of them 2,630 were ill during the past year, the number of weeks of illness amounting to 14,403, while the deaths were 120. The percentage of sick during the year was 16.16; the death-rate was 7.4 per thousand, and the number of days' illness per member was 6.14. The death-rate is decidedly low. Though comparatively large, these figures are not sufficiently so to make positive conclusions justifiable. The period under observation—twelve months—is besides scarcely long enough. There is danger of being misled by temporary disturbing circumstances, as an unusually high rate of sickness, or a larger mortality than common; and the smaller the figures and the shorter the time, the more serious these difficulties. Something may, however, be gained from an examination of the totals, especially as they are obtained from a large number of societies meeting in different parts of the country, so that an over favorable condition in one country is sure to be counterbalanced by a less favorable one somewhere else.

As the Rechabites do not publish detailed annual statements of the sickness and mortality in their ranks it is not possible to get accurate returns for the years in which such reports are not issued. As throwing light, however, on the question I am attempting to elucidate—the relative mortality and sickness in temperance and non-temperance friendly societies—the following figures, obtained at considerable inconvenience, and which have been, as far as possible, verified, are important. For 1866 a full report was drawn up. The sickness per member, in that year, in the English districts from which complete returns were obtained was approximately 7 days, while the mortality per thousand was almost exactly 9.07. In the same year 193 members per thousand were ill, and the number constantly sick was a fraction over 19 per thousand. Again, a detailed report was issued for 1868, and, omitting districts from which the returns are not complete, as well as foreign districts, it appears the sickness per member averaged 9.3 days, and the mortality per thousand was

10.75. The number of members constantly sick seems to have been as high as 25.5 per thousand, though only 165 members per thousand were ill in the course of the year. As the Rechabites were a smaller body eight years ago than now, half a dozen extra deaths would materially increase the rate of mortality.

Not wishing that inaccurate statements or figures from my pen should be published, I have submitted this article to Mr. R. Hunter. This gentleman has courteously drawn my attention to the following fact—that there are some old pensioners receiving half-a-crown a week. One member in Guernsey has been on the funds twenty years, and has received more than £200. There is a similar case in Manchester. These aged invalids are of course reckoned as passing through fifty-two weeks of illness yearly. Mr. Hunter doubts whether any other friendly society could, year after year, pay such sums to pensioners. Another circumstance of moment, which Mr. Hunter thinks much of, is, that in the newer tents, containing many life-long abstainers, the average rate of sickness is decidedly low, and compares favorably with the condition of things that obtained in the older tents during their earlier days forty years ago.

Now compare the state of things among the Rechabites with what obtains in our army. The mortality among soldiers, serving with the colors, at home, is about 9 per 1,000. Excluding accidental and violent deaths, to which, even on home service, soldiers are in many ways necessarily liable, the death-rate is barely 8 per 1,000. Of course no one could fairly compare English soldiers with average Rechabites, the former being considerably taller, better developed, and constitutionally stronger. But then, though many abstainers as well as some most estimable and high-principled men are serving in the army, there are also some drunkards, and a large class whose habits are not conducive to long life and freedom from disease. The admissions into hospital among soldiers on home service are 9.13 per 1,000, many being exceedingly trivial cases, and a large proportion being due to accidents, or to the effects of intemperance and dissipation. On the whole the death-rate in the army could not be decidedly below that of civilians of the same class and social status. This

is precisely the state of things. Carpenters in the prime of life die at the rate of 7.77, and laborers at 7.92, but Rechabites of all ages, as mentioned above, at that of 7.4 per 1,000.

The greater healthiness of the members of total abstinence friendly societies is even more strikingly shown by the following figures. Among adult males in England, the mortality per 1.000 between 20 and 25 is 8.83, between 25 and 35 it is 9.57, and between 35 and 45 no less than 12.48, and in publicans, aged 30, as high as 13.62 per 1,000.

Let me now place before my readers the returns of the Oddfellows—a large, well-established friendly society, a little over fifty years old. At the present time the Oddfellows number upwards of 500,000 members. In 1873 their receipts were £609,000, and last year they exceeded £625,000. Two years ago the average amount of funds per member was as high as £7 4s. 9d., and the estimated capital of the society now falls little short of £3,800,000. Like the Rechabites, the Oddfellows have ramifications in many foreign countries; they also support a very good sixpenny Quarterly Magazine. Every five years the Oddfellows draw up copious returns of the mortality and sickness during the preceding quinquennial period. The last of these reports is dated July 1st, 1872, and is for the five years ending 1870. I have not been able to obtain any more recent figures. Fortunately in these returns the members living in foreign countries are excluded. As, however, these members would not form a large proportion of the whole order, their being included in the returns would not materially have affected their utility for purposes of comparison with those of the Rechabites residing in Great Britain. The mere fact that the Oddfellows are so numerous makes the returns they issue of great importance, as accidental sources of error are little likely to occur. The mean annual mortality appears, in the five years ending 1870, to have been 12.626 per 1,000; the mean sickness per member was in the same period 10.5 days, and the number constantly ill averaged 28.75 per 1,000. These figures apply to the Oddfellows as a whole, and are therefore available for comparison with the Rechabite grand totals.

It is at once apparent from the above figures that, making all possible allowance for errors, the Rechabites compare very favorably with the Oddfellows—one of the best managed and largest non-temperance friendly societies in the world. We may not be justified in assuming that teetotalers are longer-lived and healthier than persons who use, say, one ounce of alcohol a day, but there is no doubt that they compare favorably with the corresponding non-temperance classes taken as a whole. In part the difference in favor of the teetotaler is due, I opine, to his being removed from the vices and temptations that the evil companionship of the public-house often brings with it, and which have nothing to do with the use or abuse of alcohol. But, on the other hand, there is no shadow of proof for Dr. Chambers's absurd statement in his Manual of Dietetics that the use of good wine lengthens life; the figures reproduced in this article would lead to the opposite conclusion.

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WESTON'S WALK AND ITS TEACHINGS.

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I. HUMAN ENDURANCE, AND ORIGIN OF MUSCULAR FORCE.

Boyton's paddle across the Channel, Webb's swim over the same course, and Weston's week's walking at the Agricultural Hall, will have done good service to the science of the human body and its capacity for work, if they direct attention to the subject of muscular exertion in general—not only the amount of it of which man is capable, but its effects on the system in all human workers, and in all the daily "walks of life."

These grand spurts of physical exertion are apt to inspire mistaken notions of their real value as absolute proofs of exceptional endurance, because they are considered without reflecting on their counterpart in the continued exertion of other workers —from day to day, from week to week, and "from one year's end to another." Not to mention the metropolitan and country postman's daily walk of from twelve to fifteen miles, there are hundreds of thousands of young men and young women in the drapery establishments of the metropolis who "do" their thirty miles a day, and this under the very worst conditions for the task—ill-ventilated, overheated shops—their hands and arms

also performing at the same time no inconsiderable amount of labour in carrying and lifting, their brains incessantly active, thinking, calculating, on the lookout—together with an immense amount of talking—often very tedious and wearisome talking—with their customers.

Do people give a thought to *these* daily exertions of muscular force? And yet, what is the salient fact or consequence of the daily, weekly, monthly, and year-long walk of these shop pedestrians and counter-gymnasts? Boyton, Webb, and Weston were "none the worse" for their achievements; they took no harm of them. But the statistics of disease and mortality disclose a very different fate in the case of our shop-men and shop-women. How is it that they always seem so full of vigour, so active, so healthy? Why, for the simple reason that only vigorous, active, and healthy young men and women are retained in these establishments. No sooner do they "break down" than they must retire, their place being supplied by fresh relays from the country, to which they return, to swell the sick list, perhaps to augment the mortality or death-roll of a locality already sufficiently guilty of disease and death in the court of the Registrar-General, who cannot take separate account of this "floating population." It is said that some thirty or thirty-five per cent. of our shopmen and shopwomen are annually invalided, and sent back to their friends, to linger, diseased and disabled. This applies generally to all the working bees in the great hive of London. London will have none but healthy workmen and workwomen; the sick must move off; it is useless to talk of pity and human sympathy, when the great point to be secured is the increase of wealth through the bones, sinews, and muscles of the human animal, who was "made" for the purpose, "sent" for the purpose, as propounded by selfishness in the pursuit of wealth. Thus it is that London enjoys the credit of being the healthiest city in the world. She will have only healthy lives, and sends those whom she has stricken with the shaft of disease, to swell the mortality of other places with deaths not of their making. It was the late Dr. Letheby who pointed out this false pretence of London's renowned salubrity and urged it upon the

attention of those who are responsible for the health of the population, as far as the removal of the remediable causes of disease is concerned, and within their province.

Over-work, excessive physical exertion, then, must be taken as among the causes which are sapping the vitality of the British race; rendering our young men and young women more and more incapable of becoming the parents of healthy offspring.

Such are the considerations that impart great interest to the investigation of the physical laws that preside over the origin and sustentation of muscular force, a subject still involved in obscurity, but still very considerably enlightened by the researches of eminent physiologists, especially the late Dr. Parkes.

The Origin of Muscular Force.—We require something tangible to begin with, in this investigation—in other words, we must get a definite idea of the nature of our inquiry. Professor Haughton, in his "New Theory of Muscular Action," calculates that a labouring man daily exerts a muscular force to a degree which may be expressed by saying that he would raise to the height of 1 foot 250 to 350 tons weight. For persons not engaged in labour, the force expended, including that required for the ordinary avocations of life, should average 150 tons, which is equivalent to walking about 9 miles a day.

Professor Haughton has shown that walking on a level surface is equivalent to raising the one-twentieth part of the body through the distance walked. When ascending a height, a man of course raises the whole weight of the body through the distance walked. Without troubling the reader with the formula propounded by the learned Professor, it appears that the following table represents the weight done in tons lifted one foot, in the various kinds of exercise:—

Kinds of Exercise.	Weight done in tons lifted 1 foot.
Walking 1 mile	17·67
" 20 miles	353·4
" 1 mile, and carrying 60lbs.	24·73
" 20 miles " "	495

Thus, a march of 10 miles, with a weight of 60lbs. (which is about the weight a soldier carries in marching order, but without

blankets and rations), is a moderate day's work. A 20 miles' march with this weight is a very hard day's work. As a continuous effort, Professor Haughton believes that walking 20 miles a day without a load (Sundays excepted) is good work.

Now, the question is—How is this work effected? What is most concerned in the performance? What is the part played in it by the nitrogen and the carbon of our food? What is expended?

While the inference from previous experiments was, that the effect of exercise was to cause a very large increase in the elimination of carbon, and a much smaller but very perceptible increase in the elimination of nitrogen, another set of experiments seemed to show that there is no increase of the nitrogen, but that the force generated in the muscles is the result of the burning or "oxidation" of non-nitrogenous substances (fats or carbo-hydrates), and not to the burning of the albuminous or nitrogenous constituents of muscular tissue,—the conclusion being, that the nitrogenuous constituents of muscles are rather to be regarded as forming the machine in which these fats or carbo-hydrates (starch, etc.) are burned.

In accordance with this view, Dr. Frankland arrives at the conclusion that the non-nitrogenous constituents of the food, such as starch, fat, etc., are the chief sources of the actual energy which becomes partially transformed into muscular work. He does not, however, deny to the albuminous matters a co-operation in the production of muscular power, but he regards their chief use as being to *renew the muscular tissue*. The muscles are thus the source both of animal heat and of muscular force.

It remained, however, for Dr. Parkes to establish something like a definite estimate of the respective function of these two elements of food.

Two series of experiments were made on soldiers at Notley. Two men were kept on ordinary diet and at usual work for four days; they were then kept in perfect rest for two days, on a diet free from nitrogen; then finally returned for four days more to their usual food and work. In the second series, the same

course was adopted, except that throughout the whole period the men took a constant quantity, namely, 302 grains, of nitrogen daily.

The conclusions deduced by Dr. Parkes from these experiments were that there is no increase in the nitrogen eliminated during the period of exercise. There is, on the contrary, a slight decrease. It is incorrect to state that there is no increase after exercise, for there is a perceptible, though not a very large increase. Dr. Parkes concludes as follows:—"Without going into an analysis of the experiments, which would occupy too much space, I believe my results indicate that our ideas of the origin of muscular force and of nutrition generally, must be modified; that during action muscles appropriate nitrogen, and *grow;* and that they do not give it off and waste, as was formerly supposed, or undergo no change, as Fick and Wislicenus believe In other words, formation of nitrogenous tissues goes on *during action*, and removal of nitrogen *during rest*.. The mechanical force manifested during muscular action is, moreover, probably derived from changes in the carbo-hydrates, especially the fats, which changes are connected with the appropriation of nitrogen by the muscles."

The theory of muscular action which Dr. Parkes proposed for consideration is as follows: During action the muscles appropriate nitrogen; this act is accompanied by changes in the carbo-hydrates, which lead to the manifestation of mechanical force; these changes lead to effete products (*lactic acid*, etc.) in the muscles, which, as appears from Ranke's experiments, *stop their contraction*, that is, induce fatigue, and prostration. Then ensues an action of *oxygen* upon the nitrogenous frame-work of the muscle, and a removal of the *effete products* of the carbo-hydrates (fat, etc.), so that the muscle becomes again capable of appropriating nitrogen, and of acting again.

The researches of the late Dr. Edward Smith have thrown additional light on the subject, for he ascertained that the amount of carbonic acid exhaled by the lungs was in propor-

tion to the actual work performed, as shown by the following table:—

	Grs. per hour.
During sleep it was at the rate of	293
When lying down and approaching sleep	355
In a sitting posture	491
When walking two miles an hour	1,088
When walking three miles an hour	1,552
And when walking at the *treadmill*	2,926

"It is highly probable, therefore," says Dr. Letheby, "that the largest amount of muscular force is derived from the hydrocarbons of our food; not that the nitrogenous matters of it may not also be a source of power, as in some cases they must be, but that there is no necessity, as Liebig supposed, for their being converted into tissue."

It would appear that the excess of nitrogenous matters is in great part oxidized (burned) without entering into the composition of tissue; and it is established that the amount of nitrogen excreted by the kidneys as urea is not in proportion to the *work done*, but to the *quantity of it in the food*, and this is observed even when there is no muscular exertion.

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WOMEN AND WORK.

By H. M. Hunt.

The conditions of female labour have often given rise to legislative enactments, and still more often to schemes for the improvement of the circumstances of workingwomen, so that a consideration of the subject may be thought within the scope of a periodical which deals with questions affecting the health and and general welfare of the people.

How far the conditions of female labour are connected with many of the evils that sanitary science is endeavoring to remove—how far those evils may be checked by the improvement of the individual—are questions worthy of the consideration of all who have at heart the real interests of the working portion of society.

That the working classes are responsible, individually and collectively, for much sanitary neglect with its attendant evils, is the conviction of many who never pause to reflect how far that responsibility may be and is controlled by a variety of causes.

Many evils are attributable to over-crowded houses, and that this is due to the fact that the working classes will not spread themselves over a larger area, forms with similar theories the stock-in-trade argument of that class of individuals whose aim seems to be to centralize the source of most evils in one class. The question how far many evils, against which efforts are now being directed, are due to the condition of female labor—how far those evils may be prevented or diminished by the improvement of that condition—is a question well worthy of consideration.

That labor is a necessity to women and to the State, will not be disputed by any rational being. It is true there have been persons who have held that women have no right in the labor market, but how our immense and redundant female population could exist without employment, does not seem to have occurred to them. Yet this is a view which for a time was held by a large portion of the community. Even now many who are opposed to female labour argue that domestic duties are sufficient to engross the attention of women, seemingly forgetting that the means to provide more domestic occupation have often to be earned by women, and that the Legislature of the country, although always ready to impose restrictions which have a tendency to reduce the wage-earning power of women, does not seem ready to do anything which may improve that position. One of the most striking anomalies of our legislation is that, while the law contains a provision compelling a husband to support his wife, it contains provisions which restrict the power of women to earn their own livelihood.

This, however, may seem natural in a country which has not recognized the right of women to take part in the making of those laws to which they have to submit.

The subject of restrictions on female labor should necessarily form a portion of a paper on Women and Work. Years have passed since legislation prohibiting women from working in coal mines was enacted, and those who advocated that and similar measures have lost no opportunity of extending restrictions to many other branches of female industry. Step by step, session by session, the women employed in many trades have been

brought under powerful influences of protection; and other measures with the same object are foreshadowed for the coming session. How far this protection is justifiable or necessary, how far it is connected with the evils before referred to, is a problem not easy of solution. In many parts of our coal mining districts women are employed in sifting and removing the rubble from the pit banks. Their day's work averages from eight to ten hours, and their remuneration from seven to twelve shillings per week. Most of these women are either the daughters of miners, and are thus enabled to aid in the maintainence of their homes, or widows who, having lost their husbands and being left with families, are compelled to labour for their own and their children's subsistence. They live in scattered villages, or rather hamlets, far from towns where a variety of employment might be offered them. The effects of restriction on their hours of labor would be to curtail their earning capacity and to reduce remuneration, already far too small; and being debarred from all other modes of eking out a ltvelihood, they would as a necessary consequence be reduced to the depths of poverty. This is not an overdrawn picture—it is merely the result which would follow from the interference or the Legislature with one branch of female labor.

Another instance occurs in the case of females employed in shops, to whom it is proposed to apply an Act entitled, "The Shops Hours' Regulation Bill." This measure, applying only to women and children, is put forward regardless of the fact that a large number of shop assistants are men. It proposes to enact, not that shops should be closed at a certain hour, but that women and children shall not be employed more than a certain number of hours. The effect of such an enactment would be to give men a monopoly of town employment, and, as a result, to drive women out of that field of industry, and to shut the door against them in future. Instances like these might be multiplied, showing that the effects of restrictions on women's work are injurious.

Correspondence.

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DRESS REFORM.

(*To the Editor of Public Health Magazine.*)

DEAR SIR,—I read with great interest the letter from your correspondent, Clara Graham, regarding her experience on dress reform.

Will you allow me, as another "emancipated female," to bear my testimony to the truth of her statement?

It is now eighteen months since I read the valuable little book on Dress Reform, and at once conformed to all its suggestions; and although I was one of those "who never wore anything tight," I certainly must confess to wearing the usual amount of heavy skirts.

Now, however, I am decidedly better in health, breathe more easily, move more freely, and have never missed the false support corsets are supposed to give. I was so pleased with these results, that I immediately ordered some copies of the book for my lady friends, and the result has been that Mrs. E., Miss. M., Mrs. D., Miss G., Miss B., Miss J. and others too numerous to mention, have all adopted the same style of dress with like happy results.

For the benefit of those desiring, but fearing to take (to them) the almost fatal step, I might give the reassuring statement that, with a well-made dress, it is impossible to tell the wearers of this costume, unless in the increased freedom and want of stiffness which it allows.

I should be thankful if any experience of mine could induce even one to make the trial; and earnestly I would plead with all mothers, if not willing themselves to adopt these means to regain health and freedom, at least to emancipate their daughters, or, better still, never put them into the straight jacket supposed to be *indispensable* to a *good figure*. I remain, yours gratefully,

HELEN LAMB

PUBLIC HEALTH MAGAZINE

AND

LITERARY REVIEW.

JUNE, 1877.

OBITUARY.

It is our melancholy duty to record the death of Philip Pearsall Carpenter, Ph.D., which took place on the 24th May, at Brandon Lodge, Guy street. He was born in Bristol, England, on November 4th, 1819. He received his education at Bristol and Edinburgh University, and on entering the ministry first labored at Stand, near Manchester; subsequently at Warrington. After some years of useful work, both philanthropic and educational, he left the church and entered upon the pursuit of his favorite study in Natural History, the Mollusca. In Warrington he prepared his report on the "Mollusca of the West Coast of North America" for the British Association, and a catalogue of the "Mauttan Shells" for the British Museum, and had presented his magnificent collection of 8,873 specimens, mounted on tablets, to them. In 1859, on a visit to America, he was engaged in arranging and determining collections of shells for the Smithsonian Institute and other institutions. In 1865 he became a resident of Montreal, and devoted much time to the improvement of its sanitary condition. Owing to pecuniary losses, he was compelled in his latter years to open a school for boys, and persevered in his arduous task to the end. He was often urged to abandon his teaching and devote his time and great abilities to perfecting that particular branch of Natural History which he seemed to love. He presented to McGill University his general collection of shells, only stipulating to be allowed to arrange

them himself, and to have them preserved in a fire-proof room. He had up to his death labored for upwards of ten years in the arrangement of this collection, and they are unfortunately unfinished; so our readers can imagine the size and value of his magnificent donation. His latest special work is an elaborate revision of the difficult group of the Chitons, illustrated by an eminent American artist. This paper, we understand, is to be published by the Smithsonian Institute.

Dr. Carpenter was best known to the citizens of Montreal and the people of Canada as an educator, a lecturer and a zealous and active sanitary and temperance reformer. In all these capacities his labors were productive of much good; and it would require a long list of efforts made to diminish mortality, and of action in connection with sanitary and temperance associations, to enable even an estimate to be formed of what Montreal owes to him.

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ALCOHOL AND ITS MENTAL TORTURES.

Much is lectured on and much is known about the ordinary results of alcohol not only among the illiterate, but also among the educated and refined, as for example, loss of health, loss of character, poverty, strife, and crime. Little, however, is known of the mental agonies of the drunkard. The former are, although terrible enough, but the portals of the reality. The mental anguish is worse, aye a thousand times worse, than the mere material suffering or deprivations. It matters not whether the drunkard be a scholar or an uneducated man, the mental suffering of both is acute, though of course the man of education feels and realizes it most.

We can rarely get this suffering laid bare so that it might be held up as a warning to the young; because when a drunkard is reclaimed he, if uneducated, is unable, owing to the deficiency of imagination, to give his experience; if educated and refined, there is a natural shrinking from recalling and laying bare suffering almost too terrible for description. In the matter of opium eat-

ing, De Quincey has done a great work in exposing the pangs of the opium eater, and many have through his means been saved from that terrible destroyer. We think if some sufferer from alcohol would but bare his mental tortures in the way De Quincey has his, much good would be done and many arrested on their downward path. It is now allowed by all that alcohol is so seductive and insidious in its advance, that no man, *however moderate*, is safe; and before the victim is aware of what is happening he is already lost, bound hand and foot in the iron grasp of the destroyer. We would earnestly warn the moderate drinker while there is yet time; we would warn those who have hitherto withstood the tempter, and have not as yet known its taste, to beware; to see in alcohol, when once it gets the mastery, pangs of conscience, mental anguish, that are indeed a foretaste, (sent in mercy) of the worm that dieth not and the fire that is not quenched. We knew a well educated gentleman, who at one time lived in this city, over whom drink had such mastery at times, that, as he once said with scalding tears running down his cheeks: "If God himself stood before me when my fit is on and forbade my drinking, I could no more resist than fly." He said there was a feeling of a want, a restlessness, a hungering after the destroyer, that was too dreadful to resist or describe. This unfortunate man, (after many attempts to resist, and many reclamations, when his mental torture was so intense that he would be covered with a cold clammy sweat,) eventually sank into a drunkard's grave, shrieking out in his last illness to those around, to save him from the devils he saw playing about his bed.

Another poor fellow, who died a raving maniac, saw rats, snakes, and devils grinning at him from every quarter, as if mocking his agony, and said "the devils are dancing everywhere on my bed, the room is full of them, they mock me, they tickle me, they tear my hair, they give me the strength of a dozen Sampsons," and shouting for help and struggling to rush from his bed, he died.

The above cases have lately come under onr notice, and we give them to our readers in the very words of those unfortunate victims of alcohol. We felt, that though these are very terrible

subjects, still it is our duty to lay them before our readers, at the same time beseeching them as they value men's souls and bodies, to help in any cause that has at heart the uprooting of the destroyer.

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THE POST OFFICE.

(See Frontispiece.)

The first points of interest which a stranger will visit in a city are its public buildings; and many transient visitors form their opinions of the city by those alone. However incorrect the inference thus drawn may be, it cannot be condemned, for the public buildings are to a certain degree representative of the city. The Post Office is the most frequently visited, both by citizens and travellers, of all buildings and institutions, and certainly affects the reputation of the city to a large extent. The old Post Office, opposite the Medical Hall, was at one time a gem of architecture, but during the march of years, the old, in all departments of science, literature, manufacture, and architecture especially, has had to give place to the new, and the Post Office was found to be too small and inconvenient for the immense amount of business to be transacted in it, and nearly opposite to it one of the finest post office buildings on the Continent was commenced. The site was formerly occupied by La Banque du Peuple, which was removed to a building a short distance east, on the same street. A more central position could not have been chosen, it being surrounded by banks and brokers, and within a few minutes walk of the principal business localities. Its construction occupied more than three years, and the expense to the Federal Government was about half a million dollars. The front on St. James street measures 129 feet, and the building extends in the rear to Fortification Lane, forming a massive block. The height from the sidewalks to the roof is 88 feet, and from the basement to the top of the central tower measures 120 feet. Being built on a hill, the basement on St. James street becomes the first story on Fortification Lane. The entire structure is of

Montreal limestone. The pillars which support the front are beautifully cut, and the ornamental carving about the windows renders the appearance of the whole very imposing. The interior is finished with the greatest taste and beauty of design. The floor of the portion allotted to the public is of inlaid marble, and the boxes and drawers extend all the length of the building. The woodwork adds to the appearance, in a great degree, being carved and stained with exquisite design. The offices of the Inspector, Postmaster, and Accountant, are spacious and elegantly furnished, and the Militia Department occupies a room on the second flat. The building, interior and exterior, is an ornament to the city, of which Montreal may well be proud. The number of our Box is 2087.

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Miscellaneous Selections.

WORKINGMEN AND THEIR OPPORTUNITIES.

The working classes very much under estimate themselves. Though they receive salaries or wages beyond the average earnings of professional men, yet many of them have no other thought than that of living in mean houses, and spending their surplus time and money in drink. They seem wanting in respect for themselves as well as for their class. They encourage the notion that there is something degrading in labor, than which nothing can be more false. Labor of all kinds is dignifying and honourable; it is the idler, above all others, who is undignified and dishonorable. "Let the working man." says Mr. Stirling, "try to connect his daily task, however mean, with the highest thoughts he can apprehend, and he thereby secures the rightfulness of his lot, and is raising his existence to its utmost good. It is because the working man has failed to do this, and because others have failed to help him as they ought, that the lot of labor has hitherto been associated with what is mean and degrading." With respect to remuneration, the average of skilled mechanics and arti-

sans, as we have already said, are better paid than the average of of working curates. The working engineer is better paid than the ensign of a marching regiment. The foreman in any of our large engineering establishments is better paid than an army surgeon. The rail-roller receives over a guinea a day, while an assistant navy surgeon receives fourteen shillings, and after three years' service, twenty-one shillings, with rations. The majority of Dissenting ministers are much worse paid than the better class of skilled mechanics and artisans; and the average of clerks employed in counting-houses and warehouses receive wages very much lower. Skilled workmen might—and, if they had the will, they would—occupy a social position as high as the educated classes we refer to. What prevents them rising? Merely because they will not use their leisure to cultivate their minds. They have sufficient money; it is culture that they want. They ought to know that the position of men in society does not depend so much upon their earnings as upon their character and intelligence. And it is because they neglect their abundant opportunities, because they are thriftless, and spend their earnings in animal enjoyment, because they refuse to cultivate the highest parts of their nature, that they are excluded, or rather self-excluded, from those social and other privileges in which they are entitled to take part. Notwithstanding their high wages, they for the most part cling to the dress, the language, and the manners of their class. They appear, during their leisure hours, in filthy dresses and with unwashed hands. No matter how skilled the workman may be, he is ready to sink his mind and character to the lowest level of his co-workers. Even the extra money which he earns by his greater skill often contributes to demoralise and degrade him. And yet he might dress as well, live as well, and be surrounded by the physical comforts and intellectual luxuries of professional men. But no! From week to week his earnings are wasted; he does not save a farthing; he is a public-house victim; and when work becomes slack, and his body become diseased, his only refuge is the workhouse.—*From "Thrift," by Samuel Smiles.*

AS I LAY A THINKING.

As I lay a thinking, a thinking, a thinking,
Merry sang the bird on the Christmas berry tree,
And there came a cheerful shout,
From the children's merry rout,
Popping in and popping out,
Round the tree.
As I lay a thinking "I love the children's glee."

As I lay a thinking, a thinking, a thinking,
Sadly sang the bird as she sat upon the tree:
And I saw the fevered face
Of the fairest in the race,
And a boy, with simple grace,
Bathe her brow.
There another form appears,
'Neath a tender mother's tears,
And the hand of death is here
On a babe!
As I lay thinking "Death hath sad sway."

As I lay a thinking, a thinking, a thinking,
"Birdie," I cried, to the songstress on the tree:
"Say—must it be—must the little ones thus pine
In the merry Christmas time,
And leave heart-ache in the chime
Of its bells?"
And the birdie only answered, "Cruel man—cruel man."
And I lay a thinking—"Cruel man?"

As I lay a thinking, a thinking, a thinking,
The birdie touched my eyes, and caused me to see—
Trooping forth, from city sewers,
Ghosts and elves, and ghastly ghouls,
Stealing in at midnight hours,
Where children sleep!
And murdering them—
As I lay a thinking, "Cruel man?"

As I lay a thinking, a thinking, a thinking,
" Birdie," I cry, " my loves are dear to me—
Is there no land,
Where men *do* understand,
And with earnest, valiant hand,
Combat *Death?*"
And the birdie carolled forth :
" England's the land—I am going home."
And I lay a thinking, " Going home?"

As I lay a thinking, a thinking, a thinking,
The birdie carolled on, as she sat upon the tree :
" The *sewers* there," quo' she,
" Are as clean as clean can be,
And the *water* filtered free,
From its foul impurity—
Follow, follow me!'
And away flew she—
As I lay a thinking, a thinking, " What might be!"

As I lay a thinking, a thinking, a thinking,
" Farewell, my birdie!" I cried most dolefully,
" But I'll stay and help the men,
Who with heart, and voice, and pen,
Clear out every filthy den,
And save life!
We will trap each cruel sewer—
Filter water clear and pure,
And bring comfort to the poor
Of Montreal!"
And I lay a thinking—" We *must* stay."

FOREIGN HEALTH STATISTICS.

United Kingdom of Great Britain, during three weeks ending March 3d, 17,765 births and 10,869 deaths were registered in London and twenty-two other large towns, and the natural increase of the population was 6,896. The mortality from all causes was, per 1,000 in London, 21.33; Edinburgh, 20.33; Glasgow, 27; Dublin, 28.33; Portsmouth, 15; Norwich, 20; Wolverhampton, 26.33; Sunderland, 21.66; Sheffield, 21; Birmingham, 23; Bristol, 24.66; Liverpool, 26; Salford, 29.66; Oldham, 28; Bradford, 23; Leeds, 21.66; Hull, 21; Newcastle-upon-Tyne, 24-33; Leicester, 22.33; Manchester, 28; Nottingham, 22.66. Other foreign cities at most recent dates, per 1,000—Paris, 29; Rome, --; Vienna, 28; Brussels, 21; Berlin, 26; Hamburg, 26; Calcutta, 30; Bombay, 40; Madras, 107; Amsterdam, 24; Rotterdam, 31; The Hague, 22; Christiana, 27; Breslau, 30; Buda-Pesth, 46; Turin, 29; Alexandria, 41; Copenhagen, 27; Munich, 36; Naples, 44.

CANCER.

Nothing will give a better idea of the horrors and prevalence of cancer than to be told that 2,971 males, and 6,627 females died in England and Wales of that disease in 1870. The numbers were 3,060 and 6,631 respectively in 1871, and 3,228 and 6,765 in 1872, a total in three years of 29,282. It is some consolation to remember that this enormous figure almost exactly represents the whole number of sufferers from this fearful disease in one or another of its forms, alive on any given day, for, assuming, as we may surely safely do, that not more than one case in a hundred is cured by the spontaneous operations of nature, or, if the reader prefers, by the resources of the medical art, and that the remaining 99 per cent. linger from two to three years, perhaps a very liberal estimate, there would be living in England and Wales about 30,000 persons suffering from cancerous disease. We speak advisedly. It would be almost impossible to convince us that cancer is ever cured, and we place small reliance on palliative measures. Cancer is, in the long run, generally fatal, and were we so grievously afflicted as to suffer from any form of this disease, we should keep physicians at arm's length, and not allow them to experiment on our bodies, and thus to augment our miseries and shorten our days. We have watched many cases of cancer, and we question whether, in any one instance, the disease was for an hour checked or the agony of the sufferer mitigated by the tortures the medical attendants inflicted, or by the nauseous remedies they administered.

As the impossibility of curing cancer has long been demonstrated, and since it is more than doubtful whether interference is expedient, it is natural to inquire whether the disease is less prevalent than heretofore. We fear that cancer is one of the few complaints becoming much more common. Mathematical accuracy is out of the question, as it is only of late years that the diagnosis of cancer has been tolerably easy and certain, but what is known appears to show that cancer is becoming more common and therefore a far more terrible foe of the human race.

MORTALITY OF THE CITY OF MONTREAL FOR THE YEAR 1876.

Class.	Order.		Diseases.	Total by Sex. Male.	Female.	Total both Sexes.
I. Zymotic.	I. Miasmatic.	1.	Small Pox	370	333	701
		2.	Measles	3	3	6
		3.	Scarlatina	22	20	42
		4.	Diphtheria	62	60	122
		5.	Quinsy		1	1
		6.	Croup	48	41	89
		7.	Whooping Cough	22	29	51
		8.	Typhoid Fever, (Infantile Remittent Fever)	50	54	104
		9.	Typhus, and Infantile Fever	2	1	3
		10.	Fever			
		11.	Fevers	16	25	41
		12.	Erysipelas	12	5	17
		13.	Metria, (Puerperal Fever)		11	11
		14.	Carbuncle			
		15.	Influenza	1		1
		16.	Dysentery	19	19	38
		17.	Diarrhœa	150	144	294
		18.	Pyœmia	142	98	240
		19.	Cholera Infantum	2	4	6
		20.	Cholera			
		21.	Ague			
		22.	Remittent Fever			
		23.	Cerebro-Spinal Meningitis	5	6	11
	II. Enthetic.	1.	Syphilis	3	1	4
		2.	Malignant pustule		1	1
		3.	Mumps	1		1
	III. Dietetic.	1.	Privation	1		1
		2.	Purpura and Scurvy		1	1
		3.	Delirium Tremens } Alcoholism	1	1	2
		4.	Intemperance }			
	IV.—Parasitic.	1.	Thrush			
		2.	Worms, &c.		1	1
II. Constitutional.	I. Diathetic.	1.	Gout			
		2.	Rheumatism	5	7	12
		3.	Dropsy and Anæmia	34	28	62
		4.	Cancer	10	15	25
		5.	Noma (or Canker)			
		6.	Mortification	2	3	5
	II.—Tubercular.	1.	Scrofula	4	8	12
		2.	Tabes Mesenterica	4	3	7
		3.	Phthisis (Cons. of Lungs)	184	229	413
		4.	Hydrocephalus	27	19	46
		5.	Tubercular Meningitis	14	8	22
			Carried forward	1216	1180	2396

MORTALITY OF THE CITY OF MONTREAL—(*Continued*).

Class.	Order.		Diseases.	Total by Sex. Male.	Female.	Total both Sexes.
			Brought forward.....	1216	1180	2396
III. LOCAL.	I. Brain and Nervous System.	1.	Cephalitis	40	39	79
		2.	Apoplexy.....	15	12	27
		3.	Paralysis.....	18	36	54
		4.	Insanity.....		1	1
		5.	Chorea.....			
		6.	Epilepsy	3	5	8
		7.	Tetanus.....	1		1
		8.	Convulsions.....	82	48	130
		9.	Other Brain diseases &c.....	97	47	144
	II. Organs Circulation.	1.	Carditis, Pericarditis and Endocarditis...	5	4	9
		2.	Aneurism.....	7	1	8
		3.	Other Heart diseases, &c	66	78	144
	III. Respiratory Organs.	1.	Epistaxis.....			
		2.	Laryngitis and Trachitis.....	5	9	14
		3.	Bronchitis	71	73	144
		4.	Pleurisy.....	4	4	8
		5.	Pneumonia	75	68	143
		6.	Asthma	9	5	14
		7.	Other Lung diseases, &c.....	28	25	53
	IV. Organs of Digestion.	1.	Gastritis	10	5	15
		2.	Enteritis.....	29	24	53
		3.	Peritonitis.....	6	21	27
		4.	Ascites.....	2		2
		5.	Ulceration of Intestines.....	1		1
		6.	Hernia	3	1	4
		7.	Ileus and Intussusception.....	1	1	2
		8.	Stricture of Intestines.....			
		9.	Fistula.....			
		10.	Disease of Stomach and Intestines, &c..	13	9	22
		11.	Pancreas Diseases, &c.			
		12.	Hepatitis	3	5	8
		13.	Jaundice	6	9	15
		14.	Liver Disease, &c.....	8	8	16
		15.	Spleen Disease, &c.....			
	V. Urinary Organs.	1.	Nephrits.....	3	1	4
		2.	Ischuriai.....			
		3.	Nephria (Bright's Disease)	16	3	19
		4.	Diabetes.....		2	2
		5.	Calculus, (Gravel, &c).....	1		1
		6.	Cystitis and Cystorrhœa	10	3	13
		7.	Stricture.....	4	1	5
		8.	Kidney Disease, &c.....	3	3	6
	VI. Generative Organs	1.	Ovarian Disease.....		2	2
		2.	Disease of Uterus, &c.....		2	2
	VII. Organs of Locomotion.	1.	Arthritis			
		2.	Joint Disease, &c.....	2	1	3
			Carried over.....	1865	1736	3599

MORTALITY OF THE CITY AND SUBURBS OF MONTREAL.—(*Con*).

Class.	Order.		Diseases.	Total by Sex. Male.	Female.	Total both Sexes.
			Brought over.....	1865	1736	3599
IV. Developm'tal Diseases	VII. Integumenta'y System.	1.	Abscess.....	6	7	13
		2.	Ulcer.....	1		1
		3.	Skin Diseases, &c.....	1	1	2
	I. Of Children.	1.	Stillborn.....	73	54	127
		2.	Premature Birth.....	81	51	132
		3.	Infantile Debility.....	286	202	488
		4.	Cyanosis.....	2	2	4
		5.	Spina Bifida and other Malformation....	3	1	4
		6.	During Dentition.....	54	60	114
	II. Of Wom'n	1.	Paramenia.....			
	III Old People.	2.	Childbirth		7	7
	IV. Of Nutrition.	1.	Old Age	39	52	91
		2.	Atrophy and Debility.....	29	27	56
V. VIOLENT DEATHS.	I. Accident or Negligence.	1.	Fractures, Contusions, Wounds.....	2	2	4
		2.	Burns and Scalds.....	3		3
		3.	Poison.....			
		4.	Drowning.....	11		11
		5.	Otherwise.....	32	18	50
	II Homicide.	1.	Murder, Manslaughter.....			
		2.	Execution.....			
	III. Suicide.	1.	Wounds.....			
		2.	Poison.....			
		3.	Drowning.....			
		4.	Otherwise.....	1		1
	IV.	1.	Chirurgici.....	3		3
			Not known.....	17	23	40
			Infection purulente.....			
			Total.....	2507	2243	4750

SYNOPSIS OF METEOROLOGICAL OBSERVATIONS FROM McGILL COLLEGE OBSERVATORY, FOR MARCH, 1877.

Barometer readings reduced to sea-level and to temperature of 32° Fahrenheit. Humidity relative saturation being 100. Mean temperature of month, 43.70. Mean of max. and min. temperatures, 44.70. Greatest heat was 74.3 on the 20th; greatest cold was 19.0 on the 3rd, giving a range of temp. for the month of 55.3 degrees. Greatest range of the thermometer in one day was 27.0 on the 26th; least range was 6.0 degrees on the 20th. Mean range for the month was 18.66 degrees. Mean height of the barometer was 29.9859. Highest reading was 30.441 on the 3rd; lowest reading was 29.493, on the 20th—giving a range of 0.948 inches. Mean elastic force of vapor in the atmosphere was equal to .1740 inches of mercury. Mean relative humidity was 62.11. Maximum relative humidity was 97 on the 21st and 30th. Minimum relative humidity was 24 on the 26th. Mean velocity of the wind was 8.9 miles per hour; greatest mileage in one hour was 25, on the 6th. Mean direction of the wind, N.E. Mean of sky clouded was 45.5 per cent. Rain fell on twelve days. Snow fell on 4 days. Rain and snow fell on 4 days. Total rainfall, 1.98 inches. Total snowfall 10.2 in., equal to 1.02 in. water. Total precipitation in inches of water was 3.00.

TOTAL MORTALITY BY AGES.

Under 1 year	1945
From 1 to 5 years	1650
" 5 to 10 "	244
" 10 to 15 "	90
" 15 to 20 "	121
" 20 to 40 "	539
" 40 to 60 "	344
" 60 to 70 "	146
" 70 to 80 "	170
" 80 to 90 "	78
" 90 to 100 "	20
100 years and over	1
Not known	2
Total	4750

TOTAL MORTALITY BY NATIONALITY.

French Canadians	3151
British Canadians	1187
Irish	201
English	101
Scotch	49
Other Countries	55
Not known	6
Total	4750

TOTAL BY WARDS.

St. Ann's Ward	682
St. Antoine "	888
St. Lawrence "	397
St. Louis "	410
St. James "	912
St. Mary "	969
West	13
Centre	42
East	112
Not known	11
	4436

City Hospital	82
Hotel Dieu	93
Montreal General Hospital	82
Other Institutions	57
Foundlings	627
Outside City Limits	1217
Total	6594

N. B.—The foundlings and deaths outside city limits are not included in classification of diseases, ages or nationalities.

MORTALITY FOR THE CITY OF MONTREAL FOR THE MONTH OF APRIL, 1877.

DISEASES.	Male.	Female.	Total both Sexes.
Small Pox	10	15	25
Measles	5	9	14
Scarlatina	3	2	5
Diphtheria	7	19	26
Quinsy	1	1	2
Croup	7	6	13
Whooping Cough	3	1	4
Typhoid Fever, (Infantile Remittent Fever)	1	4	5
Fevers		5	5
Erysipelas	1		1
Dysentery		1	1
Diarrhœa	2	4	6
Pyœmia	1		1
Rheumatism		1	1
Dropsy and Anæmia	6	4	10
Cancer	1	3	4
Scrofula	1	1	2
Phthisis (Cons. of Lungs)	16	17	33
Hydrocephalus	4	1	5
Tubercular Meningitis	1	2	3
Cephalitis	2	4	6
Apoplexy	5	1	6
Paralysis	1		1
Convulsions	12	4	16
Other Brain diseases &c	6	9	15
Carditis, Pericarditis and Endocarditis	1		1
Aneurism		1	1
Other Heart diseases &c	2	4	6
Laryngitis and Trachitis	3	1	4
Bronchitis	11	5	16
Pneumonia	17	8	25
Asthma	1	1	2
Other Lung diseases, &c	5	3	8
Enteritis	3	3	6
Ileus and Intussusception		1	1
Diseases of Stomach and Intestines, &c	3	1	4
Jaundice	2		2
Spleen disease, &c	1		1
Nephria (Bright's Disease)	1		1
Calculus, (Gravel, &c)	1		1
Cystitis and Cystorrhœa	1	1	2
Kidney disease, &c	1		1
Disease of Uterus, &c		1	1
Joint Disease, &c		2	2
Abscess		2	2
Stillborn	5	6	11
Premature Birth	6	4	10
Infantile Debility	18	11	29
During Dentition	1	2	3
Old Age		1	1
Atrophy and Debility		2	2
Fractures, Contusions, Wounds		1	1
Otherwise	1	1	2
Poison	1		1
Not known		3	3
	181	179	360

TOTAL MORTALITY BY AGES.

Under 1 year	101	" 70 to 80 "	18
From 1 to 5 years	104	" 80 to 90 "	3
" 5 to 10 "	23	" 90 to 100 "	1
" 10 to 15 "	9	100 years and over	
" 15 to 20 "	10	Not known	2
" 20 to 40 "	37		
" 40 to 60 "	27	Total	360
" 60 to 70 "	20		

TOTAL MORTALITY BY NATIONALITY.

French Canadians	225	Other Countries	5
British Canadians	88	Not known	
Irish	23		
English	13	Total	360
Scotch	6		

TOTAL BY WARDS.

St. Ann's Ward	44	West	
St. Antoine "	71	Centre	
St. Lawrence "	38	East	3
St. Louis "	31	Not known	4
St. James "	63		
St. Mary "	74	Total	328

City Hospital	2	Foundlings	68
Hotel Dieu	13	Outside City Limits	96
Montreal General Hospital	11		
Other Institutions	6	Total	524

N. B.—The foundlings and deaths outside city limits are not included in classification of diseases, ages or nationalities.

PUBLIC HEALTH IN THE UNITED STATES.

Mortality per 1,000 inhabitants, annually, from all causes and certain special causes.—(THE SANITARIAN).

POPULATION AND REGISTRATION AT MOST RECENT ESTIMATES AND DATES.	Deaths under 5 years.	Total No. of deaths from all causes.	For 1,000.	By Violence.	Small-Pox.	Diphtheria.	Scarlatina.	Measles.	Croup.	Whooping Cough.	Typhoid Fever.	Typhus Fever.	Puerperal Diseases.	Diarrhœal Diseases.	Consumption.	Lung Diseases other than Consumption.
New York, 1,071,786—4 weeks ending March 24	804	2124	25 76	71	3	85	78	5	50	33	8	3	38	48	341	388
Philadelphia, 822,500—4 weeks ending March 31	480	1314	26.69	25	32	34	20	10	28	7	24	3	11	7	202	217
Brooklyn, 566,000—5 weeks ending March 31	485	1087	22.33	21	3	94	73		58	19	5		23	10	149	159
St. Louis, 500,000—2 weeks ending March 31	102	245	12.74	4		1	3		1	8	5			9	40	71
Chicago, 420,000—4 weeks ending March 31	244	562	17.39	7	1	15	81	3	9	2	10		13	9	83	72
Baltimore, 350,000—4 weeks ending March 31	294	593	22.02	15		12	53	38	8	14	7		5	6	105	87
Boston, 363,000—5 weeks ending March 31	201	708	20.28	28		43	16	1	17	7	10	1	10	22	121	95
Cincinnati, 265,000—4 weeks ending March 31	117	339	16.63	13	7	4			3	9	11		3	2	65	130
San Francisco, 300,000—month of Feb	187	497	19.88	28	36	122	5	1	12	1	8		1	4	45	39
Year 1876	1977	5669	18.89	336	345	481	81	12	90	69	188		46	219	642	487
New Orleans, 210,000—month of March	198	713	40.74	8	236	3	3	10	2	2	5		4	23	81	84
Washington, 160,000																
Providence, 103,500—month of March	48	141	16.3	3		20			3	1	3		1	1	25	17
Milwaukee, 100,781—month of March	96	202	24.05	1	40	14	16	1	1		1	1		5	12	19
Richmond, 72,500—4 weeks ending March 31	31	102	18.28	6		2			1		1		1	3	25	8
New Haven, 60,000—month of March	32	98	19.4	1		6	8		3	2	1		2		15	12
Charleston, 57,000—5 weeks ending March 31	38	134	24.42													
Toledo, 50 000																
Mobile, 40,000—month of Feb	21	69	20.7	11	5						5		1	2	8	6
Dayton, 36,000—month of March	13	37	12.33			2		3							6	5
Nashville, 27,000—month of March	18	53	23.55	2		9	1			3				2	7	5
Wheeling, 28,000—month of March	19	49	21.00	2			4			1	2				11	12
Buffalo, 170,000																
Knoxville, 13,000—month of March	9	25	23.07					2	1						5	7
Paterson, 33,000—month of March	30	79	24.31	4		4	2		1	1					15	15
Petersburg, 20 000—4 weeks ending March 31	10	41	26.05	4		1									1	4
Yonkers, 17,500—month of March	12	40	27.42				2		1	1	2		2		4	2
Memphis, 45,000—month of March	30	117	31.2	8		2	6	1			1			6	22	26
Erie, 26,057—month of March		37	17.03	2		1	1		1		2				15	1
Syracuse, 66,000—month of March	16	66	13.2	3		1	3		1		3	1		2	12	11
Bowling Green, 6,000—3 months ending March 15	4	17	11.33	2		2							1		2	
Evansville, 44,000—month of Feb		61	15.06	3		1	1		3		1	1	3		4	10

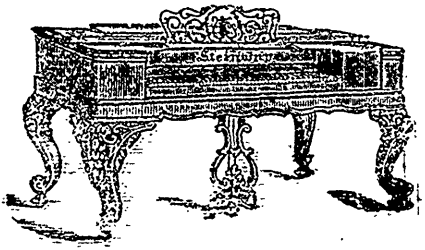
INDEX TO VOL. II.

MISCELLANEOUS SELECTIONS.

ORIGINAL COMMUNICATIONS.

REVIEWS.

$65	$80	$90	$110
$125	$150	$170	$180
$200	$250	$300	$420
$450	$475	$525	$625



$300	$325	$350	$375	$390
$400	$415	$425	$450	$475
$500	$525	$575	$600	$650
$700	$725	$750	$800	$1,000
$1,250			$1,400	

JOSEPH GOULD,

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