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VOL. II.] APRIL, 1877. [NO. 10.

Original Communications.

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FOOD AND COOKERY IN TURKEY.

BY DR. W. F. AINSWORTH.

In treating of the food and cookery of Turkey, or rather of the inhabitants of the Turkish Empire, it must be premised that there is a great difference—one that is even more marked than in other countries—between town and country, as also between Turkey in Europe and Turkey in Asia, including in both regions Mohammedans—Turk, Syrian, and Arabian—and Christians—Greeks, Armenians, Sclavs, Bulgarians, and others.

In the greater part of Turkey in Asia the peasant's diet consists simply of leavened bread, baked for the most part on what the Arabs call a *tajen*, which is the same word *teganon*, by which the Septuagint renders the Hebrew *machabath*, in Lev. ii. 5. It is a sort of pan of earthenware or iron, usually the latter, slightly convex, which is put over a slow fire, and on which thin flaps of dough are laid and baked with considerable expedition. The flour is ground daily in a hand mill, as of old, and the dough is prepared in small wooden bowls (Exod. viii. 3; xii. 34; Deut. xxviii. 5, 7). Sometimes the cakes are baked against the side of a small pit duly heated, or in a pit from which the fuel has been previously removed. The latter is the thicker and the better bread.* It is almost unnecessary to say that what is commonly

* Some also bake bread in the Zirpulia, an earthern pan, or the Peka, an iron pan, previously heated.

known as bread in this country is to be obtained in all towns of any magnitude. The miserable substitute for such among the peasantry of the East is rendered palatable with milk, or the prepared butter, *yagh* of the Turks, *ghi* or *ghee* of the Arabs, *pachos* of the Greeks, *maslo* of the Servians. This is indeed the common butter of the country. Fresh butter is churned for the Constantinopolitans at the village of Belgrade, and near some other large towns, but is exceedingly rare. Milk is rarely consumed as such, but slightly acidulated by the addition of oak leaves. This is the yagh-urt of the Turks, and leban of the Arabs, and it is common to Persia and India also, being both pleasant and nutritious in a hot climate, and more refreshing and less indigestible than our butter-milk. In summer-time fruit is also consumed at breakfast, and there are few cottagers but have in winter a little milk-cheese—the same as the Ceret of Switzerland, and the Ricotta of the Italians. Lastly, as a great treat, they put Kaimak—the cream that forms on milk previous to ebullition, and which is skimmed off—on the cakes, and a little white sugar superadded makes them really palatable. Kaimak, like yagh-urt and yagh, are common throughout all Turkey and Western Asia, but all are variously prepared, and such preparations have different names in different countries. In Bosnia and Herzegovina the Kaimak is so thick as only to want a yellow colour to be like butter. When procurable it is also eaten with honey. There are also preparations of goat's and sheep's milk; and as a rule in Asia the tribes who live in tents, as the Arabs, some Kurds, and especially the Turkoman tribes, from having more cattle, are much better off than those who dwell in huts or villages.

The common dinner of the peasant is wheat or maize crushed in a mortar and then boiled. This is rendered more palatable by the occasional addition of milk, boiled butter, or salt and pepper; it is the peasant's standard dish, and is generally known as Burghul. When rice can be obtained, it is, however, preferred. and is similarly treated. The pilaw or pilaf, in which boiled fowls or meat are superadded to the rice, is a festive dish, and the guest's common resource, as are also eggs fried in yagh or ghee. The Arabs fry eggs and dates in ghee and call it a "royal dish."

It certainly is a very palatable kind of omelette. A kid stuffed with rice and raisins is another ceremonial dish with peasants, but the most popular form of rice is the dolma—rice and chopped meat cooked in vine leaves like a sausage. A suburb of Constantinople is known as Dolma Baktchi. This is also part of the ordinary diet of the soldiery. To these few resources add a few onions, occasional mushrooms and other fungi; a few vegetables and a little fruit; a pipe and a cup of coffee, and you have the ordinary spare diet of a Turkish peasant, whether Christian or Mohammedan. A great variety of fungi are eaten in different districts with impunity, and when flavored with onions, are very palatable. The Arabs are also well acquainted with truffles.

The poorest peasants in Turkey or Syria can in summer time obtain melons and the most common vegetables of the country, such as melongenes, or Patlinjans, the blue fruit of the *Solanum melongena*, which is generally fried with onions, and the Bania, the fruit of the *Hibiscus esculentus*, generally cooked in ragouts or fried, but too glutinous for most European tastes. The former is now to be obtained in Covent Garden market. The peasantry have also Sirok or sorghum, the lablab or dolichos, haricots, lentils, lupins, vetches, and other beans and peas, but potatoes are unknown. They also eat cucumbers and lettuces, and many fruits and vegetables, either cultivated or wild. At least a dozen variety of edible vegetables are met with almost everywhere. The Arabs eat leaves of several species of Lactuca, Sonchus, and Cardui (the Cardoons themselves grow at times to an edible size without cultivation), and the roots of Cepa allium, a Scilla and an Ixia. The men on board the steamers on the Euphrates, were, in the absence of other vegetables, kept in excellent health by various wildgrowths, such as leaves of atriplex, rumex, sinapis &c. Scorzonera and salsifis sprout out wild in spring, white and delicious on some of the moister plains; and rhubarb, as we use it for pies, grows rank below the snow line in parts of Kurdistan.

To speak from experience, the better class diet of the peasants is, as in other countries, best adapted to the climate. In the hotter regions, as Arabia, Mesopotamia, and in Southern Persia, the milk diet can almost alone ensure health, and the enjoyment

of life. Many Europeans, who have tried it as well as the writer, have declared that they felt like different beings, and have pointed out details as to its beneficial effects upon the constitution; but these, it is fair to remark, were enhanced by exercise and out-of-door life.

Leaving the poorer classes, we pass to those among whom a more fastidious taste has introduced certain refinements of cookery, but which in a general point of view are in Turkey characterized by an excessive use of the previously described forms of milk, of paprika or red pepper, of onions, and garlic, and of acids and honey. The most common soup (tchorba) is made of fowl and rice, or sometimes vermicelli seasoned with onions and cloves; but also at times with yagh-urt or sour milk. It would seem that soups are more in use among Christians than Mohammedans, for it is a common thing to hear a well-to-do Christian designated as Tchorba-Bashi, or "soup-maker-in-chief." In Lent the Christians eat a soup of almonds and onions, with red pepper, salt, and a little oil. The idea is not pleasant, and the reality is still less so. The writer was once entrapped into eating a soup of sour milk and garlic. The effect was appalling, and it was with the greatest difficulty that he was enabled to keep his place at his host's table. The wine soups of Germany and Hungary have been introduced into Servia, but the Servians add to them honey and pepper, and scarcely use them, except at festive times, more especially at Christmas.

There is less variety of butcher's meat to be obtained in Turkey than elsewhere, for very little beef is eaten, and no veal. The destruction of a calf is looked upon throughout the country as a misdeed. At least this used to be the case, although recent innovations may have brought about exceptions to the rule. The ordinary butchers' meat is limited then to mutton, or lamb in its season, and occasionally to goat and kid. Pork is largely consumed in Servia and Wallachia. A Roumanian will almost live upon bread and lard with a little brandy. But as the Mohemmadans do not allow pork to be openly sold, it is chiefly consumed in the country. Wild boars abound in some parts,

where the difficulty is to get the meat cooked. Hams are only to be obtained at sea-ports frequented by Europeans.

Beef, or rather the flesh of oxen, for cows are, if killed, disposed of in the country, although not abundant, is to be purchased at most large towns. It is used only as boiled in soup, in ragouts, and in sausages. Sausage meat, well peppered, is eaten without skin, and called kaima kebab—common beef sausages are called sutjuk. Beef is also salted and dried in the sun, or smoked and dried. This is the "pastrema," which, like pemmican, is invaluable to the traveller.

The Turk is so indolent and so improvident that only two modes of cooking are really prevalent—the one is the kebab, the other is to cook in the oven. Hence the baker, or furuji, has much more business than in Europe. The meat is never basted, nor is the gravy collected. The red serum in imperfectly cooked meat is looked upon with horror as blood, and hence all viands are thoroughly well cooked. The shish kebab consists simply of bits of mutton or lamb, or liver and fat, run through with a stick, and roasted before the fire. Fowls, joints of meat, and whole sheep or goats, more or less stuffed with onions, cloves, rice, and garlic, are also sometimes attempted to be roasted in a similar manner, but the result is generally a failure, some parts being burnt, and others underdone. It is better then, in the absence of coal fires and kitchen ranges, to send to the bakers, and this is partly done by necessity, but still more from the habitual indolence of the people, is the general resource. Further, to avoid trouble, a whole repast, consisting of meat, ragouts, fish, fowl, vegetables, and cakes, are all sent to the baker at the same ime. The baked meats are afterwards served upon large tin or copper dishes (tepsi or satsh), garnished with onions. The great dish with the Turks is a whole sheep stuffed with rice, chopped liver and intestines, some fat, and seasoned with red and black pepper. This is the pirintach-doldurma-kuzi, or koyun dolmassi or dolma kuzi. In Syria, a kid, similarly prepared, or with rice and raisins, is preferred.

The great dish with the Sclavs is a pig fattened for Christmas; with the Albanians, geese fattened by being nailed down by one

foot. It may be remarked here that as a rule geese and ducks are little eaten in Turkey, and indeed not to be met with in most parts of the country, being considered as unclean. This prejudice is, however, gradually going by. Turkeys are also rare, but they are to be found among the Bithnyians, who probably rear them for the Constantinople market. Hares and game are also rarely eaten because of the difficulty of bleeding them before they die. Hence it is that fowls constitute so large a portion of the food of the country.

Most of the middle and better classes in Turkey are partial to made dishes, and hence what the French call ragouts and fricasees constitute accessories to every guest dinner. The most common of these side dishes is made of cuttings of mutton, fowl, or even beef, seasoned with onions and red pepper, and the whole stewed down together. Sour milk is sometimes added, to the discomfort of a European guest. Stewed mutton is called kapama by the Greeks, jagnenie by the Sclavs. When green or white haricots are added, the Greeks call it kukie. With sorrel, currants or raisins, and aromatic herbs, it becomes the musaka or musaku, of the Greeks.

The dolma has been already alluded to, and with a slight variety, in preparation, as with onions or sour milk, but still in vine or other leaves dipped in butter, the said sausage is admitted to table under the name of Sarma; when served without vine leaves the same mixture of rice and chopped meat is called Kuftala by the Turks, and Kiephtedes by the Greeks. Oblong cuttings of mutton constitute the Puffburek. The Greeks are acquainted with mutton and lamb chops, and call such Keptheles. Ragouts are also made of sheep kidneys and liver, and these are sometimes served up with ox tongue, tomatoes, onions, or white haricots. Sheep's trotters are reduced to a state of gelatine with eggs and vinegar, and called Patsche. This abominable mixture is often encountered in other made dishes. Few Europeans would struggle against the vile compound, still less so if, as is often the case, the whole is strongly flavored with garlic.

Among the Arabs of the higher class the first dish is almost constantly soup (Shurba), and the last the pilau. The interme-

diate course consists of a great variety of dishes. Among the more common and characteristic are mutton in small bits roasted on iron skewers, with slices of either apples or artichoke bottoms and onions between each piece; mutton minced small and beat up with spices into balls, which are roasted on skewers. Mutton or lamb stewed with gourds, roots, herbs, and chiches; fowls, pigeons, and sometimes quails and other small birds, boiled or roasted, but more frequently made into ragouts. The Mahshi or Mashee is the dolma of the Turks, and is composed of mutton, rice, pistachios, currants, pinenuts, almonds, suet, spice, and garlic, which are enveloped all together in a badinjam, cucumber, or gourd. The Mahshi is, in the absence of these, enveloped in the leaves of vine, endive, beef, or borage, and is then called Yaprak. A lamb, stuffed in the same way and roasted entire, is called Kharuf, or Kharuf Mahshi. Minced meat, with pomegranate seeds, is also spread upon thin cakes and baked in an iron plate (Lahem agin). Sausages, a great variety of pies (Sambusak), and sweet dishes and pastry (Baklawa, Kunafi, Burak); the former made with honey or dibs (juice of grapes). A few plates of sweet flummery (Faluzza) are served up by way of dessert; and last of all appears a large bowl of Khushaf, which is a decoction of dried figs, currants, apricots, cherries, apples, or other fruits, made into a thin syrup, with pistachio nuts, almonds, or some slices of the fruit, left swimming in the liquor. This is served cold and as a drink.

Eggs—yurmurta in Turkish, baydat in Arabic—constitute one of the main resources of Turkish diet, and are also often the only resources for the traveller. They are generally served up fried and swimming in yagh or ghee, and this with the common cake like bread, dipped in the butter is rather relished than otherwise. Plenty of yagh-urt takes away the richness. We have spoken of the royal dish of the Arabs, fried eggs and dates—it would appear coarse as contrasted with the refinements of sweet dishes, but it is admirable in Arabia. There are not wanting those who can make omelettes, called by the Greeks Sphuggaton, and can poach eggs; but they are not often met with. The Servians make an omelette by sprinkling flour of maize on fried eggs, and turning them in the pan. They call this prevrata or prevratusha. The traveller has one comfort, that he can generally find eggs in any village, although they are sometimes wanting in the post-houses, Khans, and Kirwan serais or caravansaries.

(*To be continued*).

Correspondence.

DRESS REFORM.

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

DEAR SIR,

With your permission, I—an emancipated woman—would like to give the Montreal ladies my ideas on dress reform.

I know we have had articles *ad nauseam* on this subject of late years, but yet the corset reigns supreme, and "dress-deformed" women, with their small waists, skirt-fettered limbs, and mud bedraggled skirts, still plod their weary way along, catching up their dresses with one hand held well behind, and consequently carrying one shoulder considerably in advance of the other—graceful figures, truly. "But," you will say, "if they heed not Dio Lewis and his disciples, to what purpose can I wield my feeble pen?" Ay, but, dear Editor, you see Dio Lewis and yourself, and most of the other disciples, are of the male Persuasion, and it seems to me if one among us,—one who has herself been but lately raised from the dead apathy on this subject in which we have so long been sunk—if she can come forth and say, "I have done this thing and lived!" *i. e.* not made myself a perfect monster of unfashionable appearance—then peradventure she may find some followers.

It is with this faint hope I am about to give my experience of Dress Reform garments.

I have worn corsets, heavy depressing skirts, for many years. I bore my burden without complaint, as do most of my fair sisters. We do not complain of the *cause* of our many infirmities, but we do say a good deal about the *infirmities*, which are the result of our absurd mode of dressing—our weak backs and chests, our headaches and general debility. Strange that we should all be afflicted with weak back bones and chests! "And God created great whales," so that we might have their bones put into strong little cases, and squeeze our unfinished forms

into the proper shape. Strange, is it not, that we were not made a proper figure at first! And yet again we read that "God created man after his own image, male and female created He them." Do we ever think of that when we call a small waist beautiful! No, we do not. We do not mean to fly in the face of Providence. We have been taught to consider a small waist beautiful, and it is only of late years that our sex has been sufficiently educated to know that it is not natural. And then how hard it is to give up a formed habit; and how hard it is to lay off the corset which has weakened, but now supports. And who has ever acknowledged, even to herself, that she wears her corsets tight? Not I, for one. Don't I remember when I could not walk up Beaver Hall Hill without puffing like a porpoise? One evening my unfeeling husband remarked: "Why, Clara, getting short of breath, eh? Too tight around the waist, I fancy."

To which I indignantly replied: "You know very well that I never wear anything tight." But finally the palpitation became so bad that I gave up walking, stayed in the house, and had the Doctor, who mildly suggested "tight corsets," but that of course I would not allow. However, I began to think seriously on the subject. I had been reading a good many articles on Dress Reform, and just about this time that dear cheap little book called "Dress and Health" came out. That decided me. It not only described my sufferings, but also told me how to alleviate them. I did not want to die just yet, as I felt sure Leonard would marry again; so, taking all things into consideration, I determined to try the Dress Reform garments. The great advantage of laying off corsets is that, without them, one cannot possibly wear a load of heavy skirts around the waist, compressing and depressing all the life and vigor out of the poor wearied body. We are told to notice the soldier. Why does he wear his knapsack slung from his shoulder? Why does an officer complain of even the weight of his sword suspended from his waist? And yet how can we delicate women, with our weak back-bones and chests, which absolutely require the aid of a corset to support them, drag around with us I dont know how many pounds weight of skirts and dress, train and trimmings—ay, and of mud and dirt

too, sometimes? Ah, well, "'tis wonderful how we do it, but we do!" We are not thinking animals at all as rule; we run in grooves, "blind followers of the blind," especially where fashion leads. However, I tried the Dress Reform, and for several months fierce war was waged between my corsets and Freedom Suit, for the latter was not at all comfortable at first, I must allow. My poor long-suffering back was very weak, but finally the corsets were defeated, and now I walk a free woman, comfortably clothed, and in my right form of body. For I must acknowledge my form is changed. I now measure at least three inches larger round my waist. Oh, horrors! after that, is it of any use asking other women to lay aside their corsets? Alas! no, I find it useless to call my friends together and ask them to rejoice with me in that I have found the great treasure of health. They laugh me to scorn. Bless your heart, they "don't wear tight corsets!" Why, as a rule, they could "jump right out of them;" but as to leaving them off—"it may be very well for a strong person like me, but they are so delicate, so weak in the back, you know. Really, if it were not for the support of the corset they could not live at all." Sometimes I wonder how it would do to exterminate the whales. I don't think we could find any good substitute for whale-bones, and then we should be obliged to fall back on our own bones. My fair sisters, I can assure you that you will feel much more comfortable on all ordinary occasions in a short skirt hung from the shoulders, and with all your under-garments loose and yielding. Your waists will grow larger I know, but you will at the same time decrease in size both above and below the waist. In fact you will become of a natural figure, and, believe me, will really look more slender than when laced in at one point to bulge forth more exuberantly on each side of it.

And pray do not imagine that I despise trains in their proper place. In a drawing-room they are appropriate and elegant. No one can be more willing to take advantage of the apparent inches which they add to one's stature, than my dumpy self.

For making carriage calls also they are the proper thing, and even a demi-trained morning-dress is very nice, when a lady is

not obliged to attend to her own work, but if she must sweep and dust and take occasional trips into the kitchen and storeroom, then she must find a long skirt a weariness and vexation of spirit. Whereas a short one is more cleanly, lighter, and even more graceful, than a long one pinned or held up.

Another advantage pertaining to loose dressing is this: We gain very much in strength of lungs and consequent power of voice. In Prof. Wheeler's article on the "Physiology of the Voice," in the last *Musical Folio*, he says: "There are two modes of breathing, viz., respiration performed by means of the diaphragm, which is termed diaphragmatic or abdominal breathing; this is the form of breathing in men and children. Women generally breathe differently from men, (why differently from young girls?) their respiration being principally performed by the action of the ribs, (no wonder when it can't get any further); this is called pectoral, or superior costal respiration. This manner of breathing is attributed to the use of stays; still there is an admitted doubt on this point." Not in my mind, for I know that I myself now breathe from the diaphragm, and consequently sing with greater ease and more power. Prof. Wheeler goes on to say a great deal more to the same effect as to the injury caused by tight lacing to the voice, which all singers, and indeed all corset-wearers, might profitably read. But should anyone be awakened by my feeble remarks to the importance of this subject, I can recommend nothing better than the little book I have already mentioned, "Dress and Health." In it she will find detailed both the evil and its remedy.

And now, dear Editor, if you think that I have enveloped my few grains of sense in a very large amount of nonsense, you must also remember that this is a very bitter pill, which we are asking the ladies to swallow. Therefore I have tried to so disguise it that they may peradventure thoroughly digest it before discovering what they have taken.

Yours truly,

CLARA GRAHAM.

TEMPERANCE DRINKS.

Four or five non-alcoholic beverages are, at the present day, consumed in rapidly increasing quantities in all parts of the world, and by all classes. Tea, coffee beans, and coffee leaves, cocoa, Paraguay tea, chicory and Guarana cocoa are the principal, although many others beverages are less generally taken.

Cocoa contains a crystallised nitrogenous alkaloid called *theobromine*, the homologue of the theine or caffeine present in the other members of the class. This alkaloid, though absolutely tasteless, is the stimulating compound for which these beverages are taken in such immense quantities. But the aroma depends on a pungent volatile oil, so powerful that it rarely exceeds one part in 150 or 200. The nutritious properties of tea and coffee are too small to deserve consideration, nor is it, indeed, certain that, unless sugar and milk are added, they have any alimentary value.

They probably stimulate the nervous system and diminish waste of tissue thus enabling the food to go farther. Tea has been credited with promoting the transformation of starchy and fatty foods, and, by increasing the action of the skin, encourages perspiration; strong tea undoubtedly counteracts the effects of alcohol, and is often used by dram drinkers for that purpose. Coffee lessens the action of the skin. It is said—though more experiments are needed to get the matter at rest—that with a certain allowance of food, and a liberal supply of tea and coffee, a much greater amount of physical exertion is possible than when these beverages are omitted from the dietary and more food given. Tea and coffee are, in some inexplicable way, of great service, and have certainly become necessaries of life. An immediate recovery of spirits often follows a cup of coffee, or tea, after great exertion has been undergone, at the same time it must be remembered that these fluids should not be drunk hot, nor should they be swallowed in excess, or on going to bed. They all, more or less, seriously interfere with sleep. Unfor-

tunately the custom is gaining ground of taking beverages almost boiling hot. The extreme folly of such conduct is proved by the violent indigestion and disturbance of the system sometimes following one cup of very hot tea or coffee—and besides, pepsin—the active principle of the gastric juice—becomes inert when hot drinks are taken into the stomach, a temperature of 120° to 130° Fahr. appearing to distroy is digestive properties.

The chief action of tea is due to the theine present, of which there is sometimes 5 or even 6 per cent. In coffee there is from 1 or 2 per cent of caffeine, and in cocoa the same proportion of theobromine. Cocoa also contains a large percentage of fat, sometimes amounting to half its weight; and therefore, unlike the other members of the same class, is a valuable and wholesome food.

That a good deal remains to be made out of the actions of these important beverages, is clear. Taken with moderate caution, they are generally of marked service. At the present day, however, these infusions are swallowed in such quantities and so strong that they do incalculable injury and occasion serious disease. Having regard to the nervousness and irritability often following the use of large quantities of *strong* tea, we should restrict any one over whom we have influence to two cups of *moderately weak* coffee or tea at meals. Twice a day is quite often enough to take them, and they should never be taken too strong.

The Chinese take their tea weak, believing the very strong infusion is injurious. The tea-tasters of the Celestial Empire are even more particular and do not swallow the weak infusions they make. But in this, as in so many other matters, our countrymen go to extreme lengths and drink beverages of dangerous strength and in immoderate quantities.

There are few who really know how to make a cup of tea, and still fewer how to economise their tea. In the first place the water must be neither too hard nor too soft. The water should never be permitted to boil furiously before being used, nor should the infusion be allowed to boil, as that spoils the flavour. The best plan is to pour on water that has just boiled, and then to

place the pot *by the side* of the fire for ten or fifteen minutes. A metallic pot should never be used either for tea or coffee.

The late Dr. Edward Smith, one of the most eminent authorities of our day on all matters connected with food, found that the best tea was made by placing tea leaves in cold water in a covered vessel, and placing the latter on the fire till it boiled.

The plan to make the tea go further without injuring the flavour is by grinding it very fine before using—less in quantity is necessary, and the quality is more surely extracted.

Coffee may be made in the same way. Cocoa though requiring to be well mixed with water—should always be well boiled, and is then much nicer, and when starch has been added to it by the manufacturers, far more nutritious.

Milk is another beverage largely used in this country—nothing better can be given to children; milk is the most perfect food known, and supports life with the greatest ease. For the first 8 or 10 months it ought to be the whole of the infant's food, and for the first 6 or 7 years should form a large part of the dietary. It is not unusual for persons to complain of the great expense of milk, but sometimes these very persons do not object to spend large sums on foods far less nutritious, but which they choose to think more nourishing and agreeable.

This is especially the case with persons who take large quantities of beer and spirits. With apparent good faith they point out the impossibility of giving their children, or of themselves using abundance of new milk as a beverage. In many cases such an objection is perfectly valid. But it is certainly strange to find that many of these thrifty people are so ignorant of the small dietetic value of beer and ale that they habitually take them in large quantities not because they like them—so they wish to be understood—but because they think them cheap and nourishing. Undoubtedly many people cannot afford milk, but no one who knows he can conscientiously spend a portion of his income on beer, can have any difficulty in obtaining plenty of milk. To complain of milk, but to drink beer, is like giving up bread because too dear, and keeping to rich and daintily flavoured cakes, because cheap and wholesome.

Much valuable time has been wasted by the advocates of Temperance in the discussion of Scriptural Wines, their qualities and nature. On the one hand, it is agreed the wines of Scripture must have been harmless and wholesome, or our Lord would not have provided them at the marriage feast. On the other hand, it is concluded that our Lord must have made ordinary wine or it would scarcely have been regarded as a miracle. It does not advance the question to endeavor to prove one or other of these positions correct. The Scripture declares wine a mocker, and strong drink raging, and whosoever is deceived thereby is not wise.—This is quite sufficient authority for temperance people to advocate sobriety.

To the question were unfermented wines possible in Palestine in Scriptural times? Yes, under two circumstances. 1st, By burying the skin containing the juice of the grape, taken directly from a new or perfectly clean press in the ground at a depth to ensure a temperature not higher than 45 degrees. Thus prepared, and if undisturbed, wine may be kept for a long time, but the moment it is exposed to the air, fermentation sets in. This mode of preserving wine was not often resorted to, for it was very troublesome, and the fermentation would be active before the wine could be drunk if the weather was warm. The second mode of preventing fermentation was to bail the grape juice until it becomes concentrated, and then keep it from the air. This latter mode was often practiced by the ancient Romans and Greek as described in Homer and Virgil. There were also added to the wine fragrant spices. Under ordinary circumstances we should regard it as impossible to have unfermented wine in Scripture times. The weak wines of that period were not intoxicating, except in very large quantities, and there was no actual necessity for unfermented wine.

The requirement for to-day in medical practice, as well as in domestic use, is a pure unfermented juice of the grape. We do not mean the juice of the refuse grapes of the vineyard after the table grapes have been sent to market. These refuse grapes, decayed and mouldy, are sold to wine makers, and from them is pressed native wine. What are required are the best grapes of the

vinyards carefully pressed and filtered, and then placed in condition where fermentation is impossible. We met with a bottle of this wine not long since in the hands of a patient who was taking it with great benefit. We found this wine had been pre-prepared by Mr. S. J. Lyman of this city, although the mint or juice had been exposed by delays on the Grand Trunk Railway for three weeks.

It was put through a process of filtration and in a new apparatus under heavy pressure and has remained unfermented for five months. It is agreeable to the taste although too sweet for some palates. As a prophylactic in rheumatism, as a refreshing beverage in fevers, to give tone to feeble stomachs, and as a drink for convalescents, we know of nothing to equal it. We would suggest that the juices of various fruits be prepared in this way, particularly of the more delicately flavoured as it is impossible by ordinary process to retain the flavor. To those whose consciences are sensitive in regard to Sacramental wines, this will meet their requirements.

We are aware that large quantities of grape juice are prepared by a process similar to canned fruits in England, fermentation however sets in the very moment it is exposed to the air. We have, therefore, as a great boon, a discovery by which unfermented wine may be preserved for an indefinite time and at a price that can place it within the reach of people in moderate circumstances.

This is the wine of the future to which makers will do well to give their attention if they wish to secure rapid sales, the countenance of the medical faculty and the gratitude of patients. It is in short a wine which is both pleasant, grateful, unintoxicating and wholesome.

PUBLIC HEALTH MAGAZINE

AND

LITERARY REVIEW.

APRIL, 1877.

McGILL UNIVERSITY, MONTREAL.

The annual meeting of Convocation for the conferring of degrees in Law and Medicine was held on the 28th March, in William Molson Hall, at 3 p.m. The day was one of the most unfavorable character, in so far as the weather was concerned, but, nevertheless, the hall was crowded in every part with the friends of graduates, ladies and gentlemen interested in the promotion of the higher branches of education, and the students successful and unsuccessful.

At a few minutes past 3 o'clock the usual procession of the governors, members of the faculties of Law and Medicine, with the students, proceeded from the Library up the steps to the large hall, where they took the seats allotted to them, amid the applause of the assemblage.

There were on the platform the following gentlemen:—

Governors—Peter Redpath, Chairman; John H. R. Molson, Esq.; the Hon. Sir Francis Hincks, K.C.M.G., C.B.

Principal—John William Dawson, M.A., LL.D., F.R.S., Vice-Chancellor.

Fellows—George W. Campbell, M.A., M.D., LL.D., Dean of the Faculty of Medicine; Alexander Johnson, M.A., LL.D., Professor of Mathematics and Natural Philosophy, Vice-Dean of the Faculty of Arts; R. A. Ramsay, M.A., B.C.L., Representative Fellow in Medicine; Samuel B. Schmidt, Representative Fellow

in Medicine; Rev. J. Clarke Murray, LL.D., Professor of Logic, and Robert Craik, M.D., Professor of Chemistry.

Secretary, Registrar and Bursar.—William Craig Baynes, B.A., Camb.

Medicine.—W. E. Scott, M.D., Anatomy; Robert P. Howard, M.D., Theory and Practice of Medicine; Robert Craik, M.D., Chemistry; Gilbert P. Girdwood, M.D., Practical Chemistry; Thomas G. Roddick, M.D., Clinical Surgery; William Osler, M.D., Institutes of Medicine; Robert T. Godfrey, M.D., Hygiene and Public Health; William Gardner, M.D., Medical Jurisprudence.

PROFESSORS—*Arts*—Charles F. A. Markgraf, M.A., German Language and Literature.

Law.—N. W. Trenholme, M.A., B.C.L., Roman Law; J. S. C. Wurtele, B.C.L., Associate Professor of Commercial Law John S. Archibald, B.A., B.C.L., Criminal and Constitutional Law; M. Hutchinson, B.C.L., Civil Law.

The Rev. Professor MURRAY having been requested to open the proceedings with prayer, did so, after which the minutes of last annual convocation were read by W. C. Baynes, B.A., Secretary of McGill College.

The PRESIDENT asked G. W. Campbell, A.M., M.D., Dean of the Faculty of Medicine, to read the report of the faculty.

Dr. CAMPBELL alluded to the action of the English Board of Trade in relation to surgeons holding certificates from McGill being refused the right to practise on board of certain vessels, and was happy to know that the order had been rescinded. He was warm in his thanks to other Universities, Sir Hugh Allan, the Press and the Government, for the warm interest manifested in the University's behalf, and expressed himself glad that the order of the Board of Trade had been rescinded, and sensible of the compliment paid to the University by those who had defended it.

The following gentlemen, (twenty-seven in number), have passed their primary examinations on the following subjects:—Anatomy and physiology, chemistry, materia medica and pharmacy, institutes of medicine and botany and zoology. Their names and residences are as follows:

Morris Becksted, Grantly, O.; Robert Bell, Montreal, Q.; John D. Cameron, Williamstown, O.; Alex. Chisholm, Lochiel, O.; John R. Fraser, Hawkesbury, O.; Henry H. Gardner, Orillia, O.; Wm. B. Gibson, Dunham, Q.; Fred. S. Greenwood, St. Catharines, O.; Jas. F. Guerin, Montreal, Q.; John A. Hutchinson, Bluevale, O.; Wm. H. Howey, Delhi, O.; John L. Irwin, Ottawa, O.; John J. McCann, B.A., Milbury, Mass.; John McCrimmon, Woodville, O.; John K. McKinley, Perth, O.; Ernest McNeill, Montague, P. E. I.; Thos. Mills, M.A, Hamilton, O.; Wm. J. Neilson, Perth, O.; Bernard Pinsonneault, Montreal, Q.; Oscar H. Riley, Franklin, Vt.; Martin C. Rutherford, Waddington, U. S.; Edward W. Setree, Prescott, O.; Daniel F. Smith, Listowel, O.; Fred. J. Stafford, Montreal, Q.; Hiram N. Vineberg, Montreal, Q.; Arthur D. Webster, Kentville, N. S.; John W. Wright, B.A., Cressy, O.

The following gentlemen (nineteen in number) have fulfilled all the requirements to entitle them to the degree of M.D., C.M., from this University. These exercises consist in examinations both written and oral on the following subjects:—Principles and Practice of Surgery, Theory and Practice of Medicine, Obstetrics, and Diseases of Women and Children, Medical Jurisprudence and Hygiene,—and also Clinical examinations in Medicine and Surgery conducted at the bedside in the hospital:—

George E. Armstrong, Montreal, Q., hospital reports. James Bell, North Gower, O., pathological reports. Albert Boyle, Charlottetown, P. E. I., surgical reports. John Brodie, North Georgetown, Q., hospital reports. Samuel C. Burland, Philadelphia, U. S. A., acute bronchitis. Gilbert Cannon, Almonte, O., pleurisy. Duncan H. Cameron, Perth, O., tubular nephritis. Cedric L. Cotton, Cowansville, Q., hospital reports. James F. Farley, St. Thomas, O., bloodless operations. Alexander C. Fraser, Wallaceburg, O., malaria. John A. F. Gillis, Summerside, P. E. I., hospital reports. Henry C. Greaves, Barbadoes, W. I., hydrophobia. Alex. B. A. Jamieson, Lancaster, O., the mind and the nervous system. John A. Lane, Prescott, O., surgical cases. William K. Law, Richibucto, N.B., typhoid fever. Frank L. Miner, Abercorn, O., placenta prævia. William D. Oakley, Plattsville, O., urinary deposits. George A. Park, St.

Marthe, Q., sanitary science. Thos. S. T. Smellie, M.A., Fergus, O., pathological reports.

The Medical Faculty Prizes are three in number:

1st. The Holmes Gold Medal, awarded to the graduate who received the highest aggregate number of marks for the best examinations, written and oral, in both primary and final branches, as also for an inaugural thesis.

2nd. A prize in books awarded for the best examination, written and oral, in the final branches. The gold medallist is not permitted to compete for this prize.

3rd. A prize in books awarded for the best examination, written and oral, in the primary branches.

The Holmes Gold Medal was awarded to James Bell, North Gower, O.

The prize for the final examination was awarded to William Donald Oakley, Plattsville, O.

The prize for the primary examination was awarded to Hiram N. Vineberg, Montreal, Q.

The following gentlemen arranged in the order of merit deserve honorable mention:—In the final examination, Messrs. Cotton, Armstrong, Fraser, Gillis, and Brodie.

In the primary examination Messrs. Neilson, Gibson, Mills, Smith and Greenwood.

The graduates were then called forward and the *Sponsio Academica* was administered by Professor Craik, M.D., and each in turn presented to Vice-Chancellor Dawson, who performed the ceremony of Capping, and delivered to each candidate his diploma of Doctor of Medicine and Master of Surgery.

The chairman having presented the prizes to successful students, who were loudly applauded as each came forward, the Vice-Chancellor. Dr. Dawson, presented the diplomas, after having administered the obligation and conferred the degrees upon each candidate.

SCARLET FEVER IN MOVING TIMES.

We should advise every one who is about removing from his old residence to a new one to make full inquiry as to the sanitary antecedents of the family going out, so as to be quite certain that no one has lately suffered from scarlet fever, small-pox, or other infectious disease. We know of a family who had suffered for two months from scarlet fever of the most virulent type (from which two children had died) and had just vacated the house. The following day a widow lady, with a family of young children, was coming in, when she was informed of the fact, which had previously been kept from her. As the house had not been cleansed or disinfected, her goods were sent to a warehouse, instead of being placed in the infected house.

There can be little doubt that disease is frequently spread in this manner, for when scarlet fever or small-pox appears in a house it is almost always "kept quiet," because, directly it is known, no friends will come near for a month or two, or will receive the visits of a member of the family, so that they become almost cut off from the world.

The medical attendant is usually requested to say nothing about the matter; and *formerly* there was no law to compel him to give the necessary information to the proper authorities; no one knew of it. The children mix with their old schoolfellows and playmates much too soon, the bedding, bed-clothing and wearing apparel are not disinfected, and the house remains untouched except with soap and water.

Now, however, the physician is compelled by law to give notice to the Board of the occurence of infectious diseases, and if to the above a rider could be put that no child who has suffered from the disease should be allowed to go out of the house till a certificate has been granted, the spreading of scarlet fever, &c., would be prevented to a very great extent. It is true that "any person who knowingly lets for hire any house, room part of a house, and all articles therein liable to retain infection, not disinfected to the satisfaction of the medical officer of the Board, shall be liable to the extreme of a fine of forty dollars." But as the law does not compel those who have so suffered to give him

information on the subject, the penalties provided by the by-law in many cases would not be inflicted.

Therefore, it behoves every one who is changing his residence at this time to become his own sanitary inspector or detective and look well into the sanitary antecedents of the family just leaving.

The Board, too, should have this by-law rigorously enforced, especially at this time of the year.

STARVING INFANTS.

Each year ushers into the world hundred of thousands of little lives; out of these, thousands die in their first year, and are returned in the Registrar's books under the titles of *atrophy*, *debility*, *convulsions*, *diarrhoea*, conventional terms of science, the pristine writing which we must interpret to mean, "Results of the patent infant extinctive process of the Mary Hall, Margaret Waters and Betsy Benmore Company."

De Quincey, in his essay on "Murder," speaks of a society of connoisseurs in murder: "They profess to be curious in homicide, amateurs and diletanti in the various modes of bloodshed, in short, murder fanciers."

If the society ever did, or still does exist, they—treating of murder as a fine art—would give to this form the greatest pre-eminence, for it is no revival of an ancient custom, it is not to be found even as a method of torture amongst the ingenious Asiatics, you may read works on Indian jurisprudence until your eyes and your hearts—if you are so unfashionable as to have one—ache, but in the long list of tortures, hanging in chains, thumb-screwing, burning, stinging with plants and the kittee, you will find no allusion to the exquisite agony of the corn flour, arrowroot, and starch-feeding process. For, divested of scientific conventionalities, what manner of death do at least 5,000 infants die of annually? Slow starvation! Yes, in spite of Infant Life Protection Acts, in spite of health officers and policemen, starved! literally, actually starved to death! Of how little moment would it be, if it were only Betsy Benmore and Mary Hall, but it is a thousand loving but *ignorant* mothers, who have to toil where

milk is dear and work is scarce. "What do you feed your baby on?" asks the doctor. "Oh, he gets plenty of food, sir, for all he's so thin; I give him powdered biscuits and corn flour, and arrowroot, and sometimes a bit of potatoe."

Now, doctor, talk learnedly and prove that the human suckling has a stomach and intestines only formed to digest the simplest and most soluble milky substances, that the saliva and pancreatic juices are not fully elaborated, that starchy food is like so much sand to them, that it passes unchanged from the stomach to the intestines, there to decompose, to cause griping pains and horrible irritation. Prove if you can to her that she is starving her child. Like the New Zealand savage, when pestered by three ministers of three different creeds, she will reply, with the manufacturers' printed label in her hand, "What road am I to take when each of you say mine is the right, the only way?"

And thus, whether from ignorance or design, from hour to hour, from day to day, the little fasting infants die, not decked like the Welsh girl with flowers as a bride, but covered with ragged quilt; not visited by curious philosophers, but haunted and dosed with opiate potions. Replace the coverlet, draw down the blind—*What are a few thousand brats to the trade in farinaceous food?*

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

Barometer readings reduced to sea-level and to temperature of 32° Fahrenheit. Humidity relative saturation being 100. Mean temperature of month, 26.62. Mean of max. and min. temperatures, 27.20. Greatest heat was 48.2 on the 22nd; greatest cold was 21 on the 13th,—giving a range of temperature for the month of 46.1 degrees. Greatest range of the thermometer in one day was 23.5 on the 28th; least range was 3.3 degrees on the 2nd. Mean range for the month was 14.1 degrees. Mean height of the barometer was 29,9829. Highest reading was 30.565 on the 14th; lowest reading was 29.552, on the 21st—giving a range of 1.031 inches. Mean elastic force of vapor in the atmosphere was equal to .11931 inches of mercury. Mean relative humidity was 77.8. Maximum relative humidity was 98 on the 3rd. Minimum relative humidity was 49 on the 13th. Mean velocity of the wind was 14.9 miles per hour; greatest mileage in one hour was 35, on the 18th. Mean direction of the wind, W. Mean of sky clouded was 60 per cent. Rain fell on seven days. Snow fell on 11 days. Rain or snow fell on 13 days. Total rainfall, 0.34 inches. Total snowfall 3.6 in., equal to 0.36 in. water. Total precipitation in inches of water was 0.70.

Miscellaneous Selections.

MODERATE DRINKING.

Sir Henry Thompson presided at a public meeting of the National Temperance League on the 7th of February, and gave his opinion against moderate drinking. "Our controversy," he is reported to have said, "is with the great mass of people who believe that alcoholic or fermented liquors are good and necessary articles of diet for men, women, and children," and again, "he doubted whether, in many cases, or perhaps in any case, alcohol was valuable in the dietary of healthy people." Men of a convivial turn will attribute such cold views of the use of alcohol and fermented liquors to dyspepsia or some other physical inability to enjoy them. But they are the views of a man of large special experience, and should have great consideration. Sir Henry admits that for purposes of very exceptional work, muscular, or nervous, a man may use alcohol, and, further, that the effect of it on persons is so different that no dogmatic rule can be laid down for everybody. There is a moderation in this language which befits a medical speaker, and which, in our opinion, greatly adds to its strength. Sir Henry's views on the use of these articles in what would be considered moderate quantities in diet have long been before our readers, and constitute a most valuable contribution to the study of lithiasis, one of those errors of assimilation which we believe to be at the root of a great deal of disease in middle and advanced life. Dr. Richardson refuted the notion that alcohol gives warmth and strength. By accelerating the action of the heart, it gave rise to excessive muscular action and waste of tissue.

There is a difficulty in defining "moderate" drinking, as Sir Henry Thompson said. And it is almost equally difficult to be moderate in speaking about this subject, though we are convinced that medical men will do good in proportion as their speech is judicial and scientific. We doubt whether it is right to say that moderate drinking is the parent of excessive drinking. But what is moderate drinking? We can best get at a notion of it by saying what it is not. Drinking early in the day is not consistent with moderate drinking. The man who begins the day with "a soda and brandy" has very little respect for his constitution; and if he does not alter his habits, they will alter his health. Odd glasses of beer and glasses of spirit in a forenoon do not come within the range of moderate drinking. They will show themselves in some rotundity of feature or figure, or alteration of colour, some dyspepsia, or lithiasis, or rheumatism. That is not

moderate drinking which adds fifteen or twenty beats to the pulse, or which flushes the face. Finally, all casual drinking is bad presumably, and is not moderate drinking. The system will not receive food merely as a matter of conviviality at all sorts of odd hours. Still less will it receive with impunity drink in this way. Drinking which disturbs sleep, either by making it heavy, or by driving it away, is not moderate. For want of thought on these points many people who would be shocked to be considered immoderate, charge their blood and tissues with drink so continuously, that the system, though never saturated with, is never free from alcohol. Moderate drinking is that which consists with a clean tongue, a good appetite, a slow pulse, a cool skin, a clear head, a steady hand, good walking power, and light refreshing sleep. It is associated with meals, and is entirely subordinated to more convenient and less objectionable forms of food. That such drinking produces drunkenness has yet to be proved, as it has yet to be proved to be essential to health.—*The Lancet.*

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FUCHSINE.

The question of the adulteration of wine with fuchsine has been the subject of an animated discussion in the French Académie des Sciences, the outcome of which seems to be the general opinion that, although probably not deleterious in small quantity, it was unquestionably a foreign body, and wines which contain it could not be regarded as pure, and ought not to be sold as pure—an opinion in which we fully concur. The question has given rise to experiments on the action of fuchsine, some of which, by MM. Feltz and Ritter, were communicated to the Académie at a recent meeting. The injection of fuchsine, free from arsenic, into the blood of animals, produced transient nervous symptoms, somewhat like those of alcohol, and this even in minute quantities. The animal experimented on was unable to remain standing, and convulsive tremour of the limbs lasted for ten minutes. Intelligence did not appear to be interfered with. In order to ascertain whether these symptoms were due to disturbance of the blood tension, the experimenters injected into the veins distilled water and fresh urine in sufficient quantity to raise the mercurial column of the hæmodynamometer one or two centimetres above the normal, without producing any comparable nervous symptoms. In order to ascertain whether the phenomena depended on capillary embolism, the symptoms were compared with those produced by the injection of organic powders into the arteries and into the veins, but the variable

results obtained showed no resemblance to the uniform effects of fuchsine. They therefore concluded that the effect is a primary one upon the nervous system.—*Ibid.*

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BRAIN CULTURE.

In a sensible and sound lecture on this all-important subject, delivered before the Bradford Philosophical Society on the 8th inst., Dr. Crichton Browne gave prominence to the intimate relations of food and brain-work, inculcating a view which it is of daily increasing concern the profession and the public should not overlook. Citing Professor Claughton's familiar comparison of the relative strength of the leopard and the deer—the vegetable feeder exhibiting greater power of *endurance*, the flesh-eater a reserve of force more rapidly liberated for a *rush*, Dr. Crichton Browne applied the principle elucidated to brain nutrition. He showed that a too highly nitrogenous diet will induce a tendency to explosive force, or irritability. The habit of eating excessive quantities of animal food, particularly in cases where the individual is exposed to many and frequent causes of irritation, was condemned, and the wisdom of treating "minor degrees of brain irritability by a reduction of the butcher's bill" suggested. This is a matter of strong practical interest. The soundness of the policy recommended has been attested by direct experiment. Dr. Crichton Browne directs attention to the increasing number of persons met muttering and gesticulating to themselves in the streets. This he regards as an ominous sign, betokening an increased tendency to "irritability of brain tissue, and a loss of inhibitory power." The power of inhibition, implying restraint and control, is undoubtedly the conservative and health-preserving faculty, besides which it gives the steadiness of reserve to character and action. The practical consideration thus again pressed on public attention deserves higher consideration than it has received. Further inquiry is needed as to the precise relations of food and brain-force. Pending the result of deeper research, experiment and reason combine to show the need of restraint in the use of animal food where sustained intellectual work is required, rather than explosive mental effort.—*Ibid.*

MORTALITY OF THE CITY AND SUBURBS OF MONTREAL, FOR FEBRUARY, 1877.

Class.	Order.		Diseases.	Total by Sex. Male.	Female.	Total both Sexes.
I ZYMOTIC.	I. Miasmatic.	1.	Small Pox	38	37	75
		2.	Measles	2	3	5
		3.	Scarlatina	1	2	3
		4.	Diphtheria	15	18	33
		5.	Quinsy			
		6.	Croup	15	5	20
		7.	Whooping Cough	1	4	5
		8.	Typhoid Fever, (Infantile Remittent Fever)	2	1	3
		9.	Typhus, and Infantile Fever	1		1
		10.	Relapsing Fever			
		11.	Fevers	4	2	6
		12.	Erysipelas	1	2	3
		13.	Metria, (Puerperal Fever)			
		14.	Carbuncle			
		15.	Influenza			
		16.	Dysentery			
		17.	Diarrhœa	2	1	3
		18.	Pyœmia	1		1
		19.	Cholera Infantum			
		20.	Cholera			
		21.	Ague			
		22.	Remittent Fever			
		23.	Cerebro-Spinal Meningitis			
	II. Enthetic.	1.	Syphilis			
		2.	Hydrophobia			
		3.	Glanders			
	III. Diotetic.	1.	Privation			
		2.	Purpura and Scurvy	1	1	2
		3.	Delirium Tremens } Alcoholism			
		4.	Intemperance }			
	IV.—Parasitic.	1.	Thrush			
		2.	Worms, &c.			
II. Constitutional.	I. Diathetic.	1.	Gout			
		2.	Rheumatism	3	1	4
		3.	Dropsy and Anæmia	1	4	5
		4.	Cancer	2		2
		5.	Noma (or Canker)			
		6.	Mortification			
	II.—Tubercular.	1.	Scrofula			
		2.	Tabes Mesenterica			
		3.	Phthisis (Cons. of Lungs)	14	24	38
		4.	Hydrocephalus	4	2	6
		5.	Tubercular Meningitis	4	3	7
			Carried forward	112	110	222

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

Class.	Order.	Diseases.	Total by Sex. Male.	Female.	Total both Sexes.
		Brought forward	112	110	222
III. LOCAL.	I. Brain and Nervous System.	1. Cephalitis	4	2	6
		2. Apoplexy	1		1
		3. Paralysis	1	2	3
		4. Insanity			
		5. Chorea			
		6. Epilepsy	1	1	2
		7. Tetanus			
		8. Convulsions	8	6	14
		9. Other Brain diseases &c.	4	5	9
	II. Organs Circulation.	1. Carditis, Pericarditis and Endocarditis			
		2. Aneurism			
		3. Other Heart diseases, &c	4	4	8
	III. Respiratory Organs.	1. Epistaxis			
		2. Laryngitis and Trachitis	2	1	3
		3. Bronchitis	13	10	23
		4. Pleurisy	1		1
		5. Pneumonia	17	16	33
		6. Asthma		1	1
		7. Other Lung diseases, &c.	1	1	2
	IV. Organs of Digestion.	1. Gastritis	1		1
		2. Enteritis	2	1	3
		3. Peritonitis	2	2	4
		4. Ascites			
		5. Ulceration of Intestines		1	1
		6. Hernia			
		7. Ileus and Intussusception			
		8. Stricture of Intestines			
		9. Fistula			
		10. Diseases of Stomach and Intestines, &c.			
		11. Pancreas Diseases, &c.			
		12. Hepatitis			
		13. Jaundice			
		14. Liver Disease, &c.			
		15. Spleen Disease, &c.			
	V. Urinary Organs.	1. Nephritis	1	1	2
		2. Ischuria			
		3. Nephria (Bright's Disease)	1		1
		4. Diabetes	1		1
		5. Calculus, (Gravel, &c)			
		6. Cystitis and Cystorrhœa			
		7. Stricture			
		8. Kidney Disease, &c.	1		1
	VI. Generative Organs	1. Ovarian Disease			
		2. Disease of Uterus, &c.		1	1
	VII. Organs of Locomotion.	1. Arthritis			
		2. Joint Disease, &c.			
		Carried over	178	165	343

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

Class.	Order.		Diseases.	Total by Sex. Male.	Female.	Total both Sexes.
			Brought over	178	105	343
V. VIOLENT DEATHS, IV. Developm'tal Diseases	VII. Integumenta'y System.	1	Abscess			
		2.	Ulcer			
		3.	Skin Diseases, &c			
	I. Of Children.	1.	Stillborn	11	7	18
		2.	Premature Birth	6	2	8
		3.	Infantile Debility	13	10	23
		4.	Cyanosis			
		5.	Spina Bifida and other Malformation			
		6.	During Dentition	4	4	8
	II. Of Wom'n	1.	Paramenia			
	III Old People.	2.	Childbirth		2	2
	IV. Of Nutrition.	1.	Old Age	3	5	8
		2.	Atrophy and Debility	1	2	3
	I. Accident or Negligence.	1.	Fractures, Contusions, Wounds			
		2.	Burns and Scalds			
		3.	Poison			
		4.	Drowning			
		5.	Otherwise	3		3
	II. Homicide.	1.	Murder, Manslaughter			
		2.	Execution			
	III. Suicide.	1.	Wounds			
		2.	Poison			
		3.	Drowning			
		4.	Otherwise			
	IV.	1.	Chirurgici			
			Not known	2	1	3
			Infection purulente			
			Total	221	198	419

FOREIGN HEALTH STATISTICS.

United Kingdom of Great Britain, during three weeks, ending December 30th, 16,538 births and 10,554 deaths were registered in London and twenty other large towns, and the natural increase of the population was 5,984. The mortality from all causes was, per 1,000: in London, 22 33; Edinburgh, 22; Glasgow, 24.33; Dublin, 24.66; Portsmouth, 17.33; Norwich, 19.66; Wolverhampton: 24; Sunderland, 28.33; Sheffield, 19.66; Birmingham, 19.33; Bristol. 19; Liverpool, 27.66; Salford, 26.66; Oldham, 28.33; Bradford, 25; Leeds, 24.66; Hull, 22.66; Newcastle-upon-Tyne, 27; Leicester, 23; Manchester, 26.33; Nottingham, 21.—Other foreign cities at most recent dates, per 1,000; Paris, 27; Rome, 26; Vienna, 27; Brussels, 21; Berlin, 24; Hamburg, 25; Calcutta, 39; Bombay, 26; Madras, 36; Amsterdam, 26; Rotterdam, 22; The Hague, 23; Christiana, 17; Breslau, 27; Buda-Pesth, 38; Turin, 22; Alexandria, 47; Copenhagen, 26; Munich, 36; Naples, 28.—*The Sanitarian.*

TOTAL MORTALITY BY AGES.

Under 1 year	129
From 1 to 5 years	139
" 5 to 10 "	21
" 10 to 15 "	7
" 15 to 20 "	9
" 20 to 40 "	56
" 40 to 60 "	21
" 60 to 70 "	13
" 70 to 80 "	18
" 80 to 90 "	5
" 90 to 100 "	1
100 years and over	
Not known	
Total	419

TOTAL MORTALITY BY NATIONALITY.

French Canadians	271
British Canadians	99
Irish	29
English	8
Scotch	2
Other Countries	10
Not known	..
Total	419

TOTAL BY WARDS.

St. Ann's Ward	55
St. Antoine "	71
St. Lawrence "	37
St. Louis "	45
St. James "	87
St. Mary "	86
West	
Centre	4
East	7
Not known	1
	393

City Hospital	7
Hotel Dieu	7
Montreal General Hospital	5
Other Institutions	7
Foundlings	48
Outside City Limits	101
Total	568

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

MORTALITY FROM SMALL-POX AND DIPHTHERIA.

TABLE prepared at the Health Office showing total number of deaths from small-pox in the City of Montreal (exclusive of the Civic Hospitals) from January 1st to March 24th, 1877 :—

SMALL-POX.

Under 6 months				20
Above 6 months, under 1 year				16
1 year	" 2	"		40
2 "	" 3	"		26
3 "	" 4	"		25
4 "	" 5	"		14
5 "	" 10	"		29
15 "	" 20	"		7
20 "	" 30	"		6
30 "	" 40	"		2
40 "	" 50	"		2
Total				191

NATIONALITY.

French Canadians	172	Irish	2
British Canadians	14	United-States	2
English	1		
		Total	191

VACCINATED AND OTHERWISE.

Vaccinated	15	Not vaccinated	115
Unknown and doubtful	61		
		Total	191

Refused vaccination from public vaccinator.... 28

SEX.

Males	93
Females	98
Total	191

REVACCINATION.

Not a single case could be traced in which re-vaccination had taken place.

DIPHTHERIA.

Under 1 year	6	10 years to 15 years	3
1 year to 5 "	47	15 " " 20 "	1
5 " " 10 "	20		
		Total	77

PUBLIC HEALTH IN THE UNITED STATES.

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

POPULATION AND REGISTRATION AT MOST RECENT ESTIMATES AND DATES.	Deaths under 5 years.	Total No. of deaths from all causes.	Per 1,000.	By Violence.	Small-Pox.	Diphtheria.	Scarlatina.	Measles.	Croup.	Whooping Cough.	Typhoid Fever.	Typhus Fever.	Puerperal Diseases.	Diarrheal Diseases.	Consumption.	Lung Diseases other than Consumption.
New York, 1,070,276—4 weeks ending Jan. 20	709	1830	22 22	61		72	101	4	40	12	13	2	12	33	328	334
" Year 1876	14208	29152	27.23	1463	316	1750	841	363	627	400	293	20	343	3782	4104	3756
Philadelphia, 825,500—3 weeks ending Jan. 27	252	819	17.19	16	22	27	16	1	17	4	38		6	4	135	93
Brooklyn, 606,000—4 weeks ending Jan. 27	336	796	19.63			77	53			16	8	1	16	8	124	116
St. Louis, 493,000—5 weeks ending Feb. 3	183	550	11.48	32		13	3		9	7	11	1	4	8	73	131
Chicago, 420,000—5 weeks ending Feb. 3	438	816	20.19	22		60	178		33		8		7	7	67	82
Baltimore, 350,000—5 weeks ending Feb. 3	306	680	20.2	12		18	90	20	10	12	15		7	8	100	66
" Year 1876	3660	7382	21.09	220		146	492	6	101	33	184	6	23	949	1115	627
Boston, 352,000—4 weeks ending Jan. 27	102	505	18.65	24	1	35	25		11	7	4		1	6	92	62
Cincinnati, 295,000—4 weeks ending Jan. 27	108	336	16.64	10	11	10		1	6	4	13		36	9	61	116
San Francisco, 275,000—month of Dec	211	607	26.48	24	32	110	3		15	2	33		6	7	62	74
New Orleans, 210,000—2 months ending Jan. 31	285	1231	35.17	33	220	12	3	7	18		12	1	6	32	154	83
Washington, 160,000—3 months ending Dec. 31	68	883	22.07	23	2	15	27		17	7	24		3	23	159	117
Pittsburgh, 152,000—month of Jan	118	283	20.30		44	10	10	12	10		4		3	4	23	58
Providence, 103,500—month of Jan	45	153	17.8	7		14	3		5		3			2	21	25
Milwaukee, 100,781—month of Jan	107	201	23.03	2	30	11	27		22	2	3	1	4	3	13	17
Richmond, 72,500—5 weeks ending Feb. 3	58	149	21.35	2		3			2		1			6	31	13
New Haven, 60,000—month of Jan	27	96	19.2			3	4				3		1	1	18	9
Charleston, 57,000—3 weeks ending Jan. 27	17	70	21.28													
Toledo, 50,000—month of Dec	21	52	12.48	6		1	1	2			1				8	4
Mobile, 40,000—month of Dec	20	94	28.02	10	2	1			12		3			2	12	24
Dayton, 36,000—month of Jan	16	41	13.66	1					1						3	12
Nashville, 27,000—month of Jan	30	69	32.81	1		13			4		1		4		12	10
Wheeling, 28,000—Year 1876	293	611	21.35	13	2	7	67	25	1	6	31		10	61	53	73
Buffalo, 170,000—month of Jan	51	163	11.57	8		1			1		4	1	1	3	34	18
Knoxville, 13,000—month of Jan	71	158	12.05	2					1					15	42	12
Paterson, 39,000—month of Jan	33	72	22.15	2		4	2		1					1	11	10
Petersburg, 20,000—4 weeks ending Jan. 27	9	30	19.5	4												5
Selma, 8,000—month of Jan	6	6	24.00												4	4
" Year 1876		167	16.87													
Yonkers, 17,500—month of Jan	7	21	14.4				1				1		1		3	5
Memphis, 45,000—month of Jan	37	115	30.66	4		3	7		1				1	6	14	33