REMARKS

BY

APOSTLE BRIGHAM YOUNG,

DELIVERED

At the General Conference, on Saturday morning, April 5th, 1884.

REPORTED BY GEO. F. GIBBS.

It has been said, that words fitly spoken are like apples of gold in pictures of silver. This is especially true when they are accompanied by the Spirit of the Lord, carrying with them life and salvation to the people. There are many subjects that might be dwelt upon which are familiar to the Latter-day Saints, and which would doubtless yet be appropriate to speak upon in our general assemblies. I look back, upon the past few years and recall principles that have been taught to the people, but which the Spirit no longer seems to inspire the Elders to dwell upon. And the question arises in the mind: Have such principles become obsolete?—Are they done away? I look forward to the time when we shall be able to speak upon the principles of uniting this people together in their temporal as well as their spritual interests far more effectually than we have ever done heretofore United we stand; our interests are identified; the welfare of the one affects the other; and our influence socially, financially and politically is powerful for good, and is a lever for our own prosperity as well as our own protection. Disunited we acknowledge our own weakness; infirmity is stamped in our every act, and in time we pass away like the dream of the night vision. I do not desire at this time to treat upon the subject of the United Order, but I would like to ask if the Latter-day Saints think for a moment that that principle is done away, or that it may be considered a failure never again to be brought to our notice? If such has been the conclusion of any part of this assembly, I have no hesitancy in stating for their information that such is not the case; it cannot be so if we are ever to answer the design of the Almighty respecting the future of His Kingdom upon the earth. I would say further, the time is approaching, if I am a judge of the Spirit as witnessed among the people throughout our settlements from the extreme north to the extreme south, when the principle will again be sounded in our ears; and the Spirit of God as I read it in its workings among the people, and as I feel its operations in my own breast, testifies to me that when it comes again the people will be prepared to receive it and act upon it as they have never done before. It is perhaps necessary in our present state that we should have a certain amount of experience; the experience we have had will doubtless be of value to us in the future when the people will again be called upon to practise this principle; and when this time comes, in my opinion, we will commence at the root of the matter, accepting in the spirit and meaning thereof that principle which has been disregarded and shunned by us for many years, the principle that lies at the foundation of the greatness and power to which we are destined to attain. I am happy to say that the people are being led to examine their own hearts and to ask themselves what they are doing individually towards building up the Zion of God, and towards influencing others to do likewise. The spirit that is working among the people is having the effect of reform, as I have never before witnessed it. The reformation of 1856 ran through the people like wild fire, they received it under the impulse of the moment when the spirit of enthusiasm ran high; but now there appears to be but little effort to move the people in this direction, at the same time a determined feeling exists among the Saints to right themselves, and that too by commencing at the bottom round of the ladder and then to gradually ascend. The hearts of the people are being turned to the Lord. The men who have of late been addicted to drinking, using tobacco, swearing and other loose habits are, of their own free will, discarding their bad habits, and thus righting themselves and setting a better example to their children and associates. This silent but potent influence that is fruitful of such good resuits is significant to the man or woman that is alive in this work, and that is watching with enterest its onward progress; and it comes home to our hearts with convincing proof that the Lord is working among the people by His Spirit, and it bids us all, in its silent and suggestive way, to prepare ourselves for events that must come and that are even nigh at our doors.

In witnessing the operations of the Spirit in the midst of the people in such a remarkable manner I was strongly impressed with the idea that we, as a people, ought to be turning our attention in directions looking to our becoming self-sustaining. We are paying out very much more than we produce. Where does the money come from? How is it that the families of our workingmen are able to purchas- for their use and support imported articles?—How long can this people prosper by pursuing such a course? The danger of this course has long been pointed out by our leading men; and sooner or later, unless all turn a short corner, the condition that we shall place ourselves in will be of such a convincing character that all will readily concede the correctness of the position taken by our leaders in urging the people to become producers and patrons of home productions. This doctrine was taught by President Young during much of his life time, but especially during his later years; and it does appear to me that we are hastening on to the point that President Young said we should reach unless we became self-sustaining, namely financial embarrassment. In fact his doctrine on this subject was that we could not stand financially unless we became self-sustaining. It is doctrine that comes home to the heart of every Latter-day Saint; it is doctrine that all must accept and reduce to practice if we would attain to power and influence in the land. We must become financially strong. Wealth in and of itself is a lever of power; and wealth in the hands of a righteous people must necessarily command an influence for good. We must first learn to make a wise use of the means that we possess, however little that may be; and by continuing to do this, we prepare ourselves to make a right and proper use of the power that wealth brings. But in order to attain the position that we are bound to occupy in the land we must learn to combine our interests in such a manner that it will be to the advantage of the whole community to consume and wear that which is produced and manufactured at home. It will be by cooperative action that we shall be tied together in temporal matters as we are now bound together in spiritual things. As a thoroughly united people we can the better hasten the work of God in the earth; such as building temples, establishing settlements, civilizing the Lamanites, carrying the Gospel to the Jews, and building up the Zion of God in these mountains. We shall be the better able to extend a helping hand to the needy poor, to the oppressed and downtrodden among the nations as well as to protect ourselves from the inroads of wicked and designing men. The few minutes alloted to me have expired. That God may inspire our hearts to do His will, and that all may be willing in the day of His power, is my prayer in the name of Jesus. Amen

HOW TYPHOID FEVER IS CONVEYED.

BY DR. T. J. MACLAGAN.

Typhoid fever is one of the most common of the serious ailments of civilized life. No household is safe against it; there is no family which it may not invade. In Great Britain alone not much short of 200,000 people suffer from it every year. Of these nearly 20,000 die, most of them in the prime of life. It is even more prevalent on the Continent.

The question of the contagiousness of such a disease is one of vital importance; and yet it is one on which the most antagonistic opinions are held.

Among the many ailments which may be transmitted from the sick to the healthy, the ones with which we are most familiar in this country are those which are grouped together under the name of "the eruptive fevers." To this group typhoid fever belongs. It includes also small-pox, typhus fever, scarlet fever, and measles. Each consists of an attack of fever of more or less definite duration, and of a local inflammation or eruption: during the course of each its poison is largely reproduced in the system and each may be transmitted from the sick to the healthy.

There are several ways in which a disease may be transmitted:

1. Its poison may be introduced directly by inoculation, as is daily done in the case of vaccination.

It may pass directly into the surrounding atmosphere from the persons of the sick, and be inhaled by those in their neighborhood, as constantly happens in small-pox, typhus fever, measles, and scarlet fever.

It may be conveyed indirectly, and to a distance, in articles of clothing, bedlinen, etc., and, passing from them, may be inhaled by those who wear or handle them, as often happens in the same diseases. Or it may be conveyed in food or water, and enter the system through the digestive organs, as frequently happens with the poison of typhoid fever.

When we wish to say that a disease is transmitted from person to person, without defining the mode of transmission, we say that it is COMMUNICABLE. The term is a general one, which includes every mode of transmission.

When we wish to say that a disease may be transmitted by inoculation, we say that it is INOCULABLE.

When we wish to say that the poison may be conveyed in articles of clothing, in linen, in food, in water, etc., we say that these articles have been infected by the poison, and that the disease is INFECTIOUS.

When we wish to say that a disease is produced by personal contact with one suffering from it, and that the danger of catching it increases with the closeness and intimacy of such contact, we call it CONTAGIOUS.

A contagious disease, therefore, is one in which the danger of contracting it increases as we approach, and diminishes as we recede from, a person suffering from it. It is *contaetuous*.

Contagion may be defined as direct infection; and infection as indirect contagion. In both a poison passes from the sick to the healthy. It is the difference in the mode of conveyance of the poison that makes the difference between the two. The distinction is one of the utmost practical importance, and must be borne in mind in discussing the question of the contagiousness of any disease. An ailment may be infectious without being contagious. When, with reference to a case of typhoid fever in his own house, a man asks the question, "Is it contagious?" he does not wish to know whether or not some one in the next street may take the disease, but whether or not there is a likelihood of its spreading among the members of his own household, and whether or not there is danger of going near the sufferer. The only accurate and proper meaning of the word is that attached to it in the definition which I have given. That, therefore, is the sense in which it is used in this paper.

What is the nature of the poisons which pass from the sick to the healthy? Their most distinctive peculiarity is, that they are largely reproduced in the system during the course of the maladies to which they give rise. The minutest possible pertion of small-pox matter, for instance, may be introduced into the system of a person who has not had that disease, and who has not been vaccinated, with the certainty of giving rise to a malady during whose course there will be formed many thousand times as much of the poison as sufficed to set the disease agoing.

Contagion, then, consists physically of minute solid particles. The process of contagion is the passage of these from the bodies of the sick into the surrounding atmosphere, and in the inhalation of one or more of them by those in the immediate neighborhood. If contagion were a gaseous or vapory emanation, it would be equally diffused through the sick-room, and all who entered it would, if susceptable, suffer alike and inevitably. But such is not the case; for many people are exposed for weeks and months without suffering. Of two persons situated in exactly the same circumstances, and exposed in exactly the same degree to a given contagion, one may suffer and the other escape. The explanation of this is, that the little particles of contagion are irregularly scattered about in the atmosphere, so that inhalation of one or more of them is purely a matter of chance, such chance bearing a direct relation to the number of particles which exist in a given cubic space. Suppose that a hundred germs are floating about in a room containing two thousand cubic feet of air. There is one germ for every twenty cubic feet. Naturally the germs will be most numerous in the immediate neighborhood of their source, the person of the sufferer; but, excepting this one place, they may be pretty equally distributed through the room; or they may be very unequally distributed. A draught across the bed may carry them now to one side, now to the other. The mass of them may be near the ceiling, or near the floor. In a given twenty cubic feet, there may be a dozen germs, or there may be none at all. One who enters the room may inhale a germ before he has been in it ten minutes; or he may remain there for an hour without doing so. Double the number of germs, and you double the danger. Diminish the size of the room by one half, and you do the same. Keep the windows shut, and you keep the germs in; open them, and they pass out with the changing air. Hence the importance of free ventilation; and hence one reason why fevers should be treated, if possible, in large, airy rooms. Not only is free ventilation good for the sufferer, but it diminishes the risk to the attendants.

We see in this, to, the reason for banishing bed-curtains, carpets, and all unnecessary furniture from the sick room in cases of contagious fever. The germs are apt to adhere to such articles, and so make them the means of conveying the disease to others.

All organisms consume in their growth nitrogen and water. Those with which we are now dealing are no exception to the rule. Growing in the system, they must get these elements there. But nitrogen and water are the chief materials required for the nutrition and repair of the various organs bance. And so it does. This disturand tissues of the body. The propagation in it of millihns of organisms having wan0s identical in the main with those of its own tissues must cause serious disturbance declares itself by that aggregate of phenomna to which we apply the term fever.

An organism which thus grows in and at the expense of another is a parasite. One of the peculiarities of parasites is that they flourish, not in any part of their host, but only in some particular organ or tissue, which is called the *nidus*, or nest of the parasite. The organisms with which we are now dealing (tne poisons of the eruptive fevers) show similar peculiarities. Each has its own nidus, its own localized habitat, in which it is propagated, and out of whieh it ceases to be reproduced. The poisou of small-pox has its nidus in the deep layer of the skin; hence its characteristic eruption. That of scarlet fever in the superficial layer of the skin and in the throat; hence the rash and the sore-throat of that disease. That of measles in the skin and in the mucous membrane of the air-passages; hence its characteristic symptoms. That of typhoid fever in the glands of the intestine; hence that disease consists of fever and of ulceration of the bowel.

The contagiousness of a given eruptive fever must be directly as the number of germs which, in a given time, pass from the body of a sufferer into the surrounding atmosphere. This, in its turn, must depend on the seat of the propagation of the poison, and on the relation which this bears to that atmosphere. In small-pox, scarlet fever, typhus fever, and measles, the seat of this propagation is the skin and mucous membrane of the air-passages; it is, therefore, in direct, free, and constant communication with the external air. The poisons of these diseases are accordingly freely given off into the atmosphere of the room in which the sufferer is, and they themselves are highly contagious.

In typhoid fever, the poison is propagated in the bowel, and is thrown off with the discharges from it. It thus passes from the system in a manner and in a combination which insure its speedy removal from the neighborhood of the sufferer. The typhoid-germs are there; but they are mingled with discharges which may be removed, and as matter of course are removed, before the germs can pass off from them into the surrounding atmosphere. The seat of the propagation of the typhoid-poison has no direct relation with this atmosphere; germs can not pass directly from the one to the other; the disease, therefore, does not display the property of contagiousness.

The danger in typhoid fever is not contact with the person of the sufferer, but contact with his stools. If these are properly managed and disposed of, the disease can scarcely spread. But, if they are allowed to pass into drains which are imperfectly trapped, inadequately ventilated, or insufficiently flushed, or if they are carelessly thrown on the ground, or allowed to percolate through the soil into drinking-water, then one case of typhoid fever may give rise to many others. The occurrence of a case of typhoid fever in a house is a sharp test of the efficiency of its sanitary arrangements. If these are perfect, and the stools properly managed, all will go well; If they are defective, one case may give rise to many others. But the communication of the disease is not direct, by contact; it is indirect, by infection of drinking-water, or of an atmosphere which may be remote from the person who is the source of the poison. A case of typhoid fever is introduced into a locality. The stools are thrown out on the ground or into a cesspool, whence they percolate through the soil into a well. The person who drinks water from that well runs a greater risk than one who sleeps in the same room as the sufferer and is in constant attendance on him.

The practical outcome of all this is—1. That the mother may nurse her son, the wife her husband, the sister her brother, without the risk involved in the case of typhus or scarlet fever; and, 2. That there is little or no danger to the other inmates of the house, if its sanitary arrangements are perfect and the stools properly managed.

On this view of the nature and mode of action of contagion, it is easy to see, not only how the process of contagion and its varying phenomena may be explained, but how, by care, much may be done both to prevent the poison from passing into the atmosphere and to diminish its chance of acting after it has got there. We have only to consider what is the chief channel by which the contagion gets exit from the system, to know by what means we are most likely to prevent its passing into the surrounding atmosphere. In typhoid fever the poison passes off in the stools; and what we have to do is to see that these are promptly and properly disinfected and disposed of. In small-pox, scarlet fever, typhus fever, and measles, it is eliminated by the skin, and we can not altogether prevent its getting into the atmosphere; but, by frequent sponging with some disinfecting fluid, or even with plain water, many germs may be arrested in their outward course.

The Apostolic mode of anointing with oil is also an efficacious way of fixing and arresting the germs: it is especially useful during convalescence from scarlet fever in fixing the particles of peeling skin, which are a source of much danger. They are dangerous because they contain the germs which have been produced in them. What we see happen in the larger particles of skin happens also in many of the much smaller particles of contagion.

By the adoption of these various measures, by rigorously isolating the sufferer, and by having the room well ventilated, much, very much may be done to check the spread of contagious fevers. The matter of which organisms are composed is one of the most perishable things in nature. Contagion is an exception to the rule. By exposure to the air much of it is destroyed; hence such exposure is one of the best of all disinfectants.

Sanitary science has done much to show us how some of the diseases with which we are now dealing might be extinguished, and how all of them might have their prevalence greatly diminished. It rests with those who have such ailments in their houses to carry into effect the measures calculated to destroy aud get rid of the poison, before it has had time or opportunity to be a source of danger to those around. Rut the adoption of proper measures presupposes a knowledge of the nature of the poison with which we have to deal, and of the manner in which it passes off from the system. In not one is this knowledge more necessary than in typhoid fever; in not one are the measures which such knowledge dictates more easily applied, or more likely to be effective. But, to regard typhoid fever as contagious in the same sense that small-pox and typhus fever are so, is to divert attention from the true source of danger, to lead to the adoption of measures which are uncalled for, to the neglect of those which are urgently required; is to cause unnecessary concern to the sufferer and his friends, and to deprive him and them of the mutual comfort and solace which a little daily intercourse affords. The peculiarities of the illness may be such as to make it right to exclude the friends; but isolation is not requisite for the same reason that it is so in typhus.

One more point. The receiver as well as the giver of the poison has something to do with the determination of its action. Not every person into whose system a germ passes necessarily suffers from its action. A man who has had small-pox, for instance, is no longer susceptible to the action of its poison—and why? Not because the poison can not get into his system, for we can make sure of that by inoculating him with it, but because, during the first attack, the nidus, the special material necessary to its propagation was exhausted, and has not been reproduced. This immunity from the second attack is a general characteristic of the eruptive fevers; individual exceptions there are but the rule is that one attack confers immunity from a second.

A germ does not act unless it reaches its nidus; it may enter the system, make the round of circulation, and again pass out without ever coming in contact with its nidus, and therefore without doing harm. The more widely the nidus is diffused, the less likely is this to happen. In small-pox, in scarlet fever, and in measles, the nidus is widely scattered. In none of them is a germ likely to make the round of circulation more than two or three times, without being conveyed to its nidus.

In typhoid fever the nidus is situated in a limited portion of the bowels, the sole route to which, by way of the circulation, is through an artery the size of a crow quill; a typhoid-germ may be taken in through the lungs and may make the round of circulation two or three dozen times, without being likely to enter that particular vessel. The more often this may occur the greater the chance of its being thrown off from the system without acting. But, if the typhoid-germ be taken in through the digestive organs it is brought into direct contact with the seat of its nidus, and can scarcely fail to act. Hence the great danger of drinking water or milk contaminated with the typhoid poison.

The glands which constitute this nidus are not equally prominent and active all through life. In infancy they are quite rudimentary. At two or three they *begin* to grow, and gradually increase *in* size, and presumably in functional activity, till the age of puberty. They continue to be very distinct for twenty or twenty-five years. After forty they begin to get less, and gradually diminish till at seventy they have dwindled away so much they can no longer exercise any active function. Their period of prominence and of functional activity corresponds exactly to the period of susceptibility to the action of the poison of typhoid fever. That disease is extremely rare in infancy; from two to six, or seven, *it is* more common, but it is generally very mild. At fifteen or sixteen commences the period of greatest liability to it; and from that age until thirty-five and forty it is very common and very fatal. After forty-five it begins to decline both in frequency and severity: and goes on declining as years advance, till at seventy the liability to it may be regarded as practically worn out. When it occurs in advanced life it is generally mild; but its occurrence then is as rare as in infancy. Increased and diminished susceptibility to the action of the poison of typhoid fever corresponds exactly to the increase and diminution in the size and functional activity of the glands which constitute its nidus.

The insusceptibility to the action of the poison, which is naturally and slowly developed in old age, is artificially and rapidly produced by the destruction of the nidus during an attack of the disease.

Using the word contagious in its proper sense of communicable by contact, and regarding the typhoid-poison as a parasite whose nidus is in the glands of the bowel, we are led to the conclusion that the disease to which it gives rise, though undoubtedly infectious, can scarcely be contagious. We know from our experience that it is not so; for it never spreads in hospital, and attendants on the sick suffer no more than other people.

The difficulty has been to reconcile these facts with the reproduction of the poison in the system. The source of this difficulty is the rooted belief that this reproduction takes place in the blood. On this view all the eruptive fevers ought to be equally contagious. But let us once adopt the view that the poisons of the eruptive fevers are parasites, and that the seat of the local leison of each is the nidus of its parasite, and therefore the seat of its propagation, and the whole difficulty vanishes. We at once see why each has a definite period of duration, why one attack protects against a second, why each has its own characteristic leison, why each presents such varying degrees of severity, and why they possess different degrees of contagiousness.—*Abridged from the Nineteenth Century.*

STAKE CONFERENCE.

The Quarterly Conference of the Salt Lake Stake of Zion commenced in the Assembly Hall at 10 a. m. on Friday, May 2nd.

There were present on the stand: Of the Twelve Apostles, Albert Carrington and George Teasdale; of the Presidency of the Stake, Joseph E. Taylor,