An Address OF THE CARE OF THE HEALTH OF MARRIED WOMEN MISSIONARIES.*

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A RESOLUTION has recently been discussed by the association to the effect that women missionaries shall not marry until they have been in their proposed field of service for at least a year. The proposed rule appears likely to be of real value. It is quite impossible for anyone to know how far the climate is likely to prove suitable, and should it prove that the worker is unable to maintain her health in the climate in which her future husband has to work, it is evident that much annoyance, disappointment, and even wreckage of health and happiness will ensue.

Undoubtedly the rule can be followed in the case of women who have gone out, unmarried and unbetrothed, to work as missionaries. If such a lady meets her destined husband in the field there is relatively little hardship, and there is much wisdom in asking them both to wait until the woman has had time to find out how far she is able to adapt herself to the climate. On the other hand, difficulty appears likely to arise when the couple meet at home, the woman never having been in the field. They may become engaged and wish to go out as bride and bridegroom, or the man may go to his mission station, or return to it, expecting his *fiancée* to follow him. In the two latter cases the woman arrives on the mission field as a bride, without any experience of the climate. How is she in this case to obey the rule of waiting the prescribed year? There may be no other European woman in the station, or at any rate there may be no suitable home in which she can live during the probationary period.

It would be interesting to know exactly what arrangement is proposed to meet this difficulty.

Before a woman who is intending to go to the mission field as a bride is accepted a full and careful examination ought to be made of her health. Great attention should be paid to family history and to personal history. It too often happens that the examinee looks on the examination as a lawful contest of wits, and not only puts the best interpretation that she can on her personal and family history, but also suppresses any information that she thinks might have an adverse effect on the doctor's verdict.

The detailed examination of the examinee's present state should include all the ordinary points, such as relation of height to weight, condition of skin, muscles, skeleton, eyes, ears, nose, throat, teeth, organs of circulation, respiration, and digestion, and, in addition, there should be a very careful examination of the bony pelvis and its contained organs. The external measurements should be carefully ascertained by means of callipers, and the internal organs should be investigated, usually through the rectum. Attention should also be paid to the hymeneal orifice, as much trouble is experienced in cases of dyspareunia. This detailed and careful examination is necessary, because it not infrequently happens that young married women are called upon to live and work in up-country stations far away from all skilled medical assistance. Should there be any condition likely to lead to difficulty in labour—for example, pelvic deformity, even of comparatively mild degree—its existence should be made known to the intending husband and wife, as well as to the society's medical examiner. It would probably be useful to have the report of the medical examiner made out in triplicate, one copy to be handed to the missionary, the others to be retained by the society and the society's medical adviser.

It would appear that a part of the doctor's duty is to give advice, to explain to the *fiancée* any facts connected with her health which call for special attention, and more

particularly to insist that, in all cases in which it is possible, the first confinement shall take place in a town where competent medical assistance is procurable. At the same time useful advice may be given as to the necessary outfit of clothes, which should include a thin, fine woollen or silk garment, to be worn next the skin, and reaching from the neck to the knees. Suitable protection against mosquitos and other insect pests should be indicated, also protection for the head by a pith or cork hat with a suitable puggaree, and protection for the eyes by dark blue or neutral tinted glasses with lateral flanges. The medical adviser should further insist on all dental repairs that may be desirable, and also on the necessity for adequate protection against small-pox by vaccination and against typhoid by inoculation.

The society's medical adviser must explain to the prospective bride something of the enormous changes that marriage makes in a woman's physical position and general outlook on life. The unmarried woman is an individual responsible for maintaining her individual organism in health and efficiency; the married woman is responsible for something more than this. Upon her health and fitness depend in a large measure not only her husband's happiness, but his health and power for work. In addition to these responsibilities, the bride must be helped to realize that she is a potential mother, and that on her organic integrity and functional efficiency will depend the health and well-being of her offspring.

It might be thought that this little homily should be delivered by someone else, but in all probability the society's physician is the person best fitted for this duty, and it is absolutely necessary that someone should point out to the young woman the changes that are likely to occur in her health. He should point out to her that marriage usually causes a considerable diversion of nervous energy into new channels, and for a time digestion and the functions of the bowels are liable to be sluggish. The more thoughtful and the more conscientious the young woman, the more is she likely to be somewhat overwhelmed by the prospect of her new duties and new responsibilities and the more does she stand in need of kindly and sympathetic advice.

All young married women need this kind of help, and perhaps particularly with regard to the special duties of the married state. Some sort of a physiological standard should be suggested so that the husband and wife should live together in comfort and in harmony, not defrauding each other nor shirking the responsibilities and the difficulties of the married state. It is only too common at the present day to find young couples, and even good and well meaning young couples, who have no adequate knowledge of the objects of marriage, or of the duties entailed thereby. In some cases they even consider it praiseworthy that they should for a time refuse to accept the natural consequence of matrimony. They allege devotion to work, narrowness of means, and a scrupulous regard for the future good education of their children as reasons why they should have none for a few years. This mistaken action on their part frequently leads to artificial restrictions and anticonceptive measures. Of the immorality of these proceedings there can be no doubt, and curiously enough, even where no mechanical or chemical damage is caused to the organs and tissues, some nervous injury ensues, and when the husband and wife wish to become parents their desire is too frequently disappointed. Nor does the evil end here, for thwarted and disappointed function appears to react injuriously, and is probably one of the causes why many childless wives become neurasthenic and melancholy in middle life.

Another point in the care of the health of married women missionaries is to be found in the modifications of menstruation which are apt to occur. Not infrequently the sudden change of climate and method of life results in more or less long-continued amenorrhoea. A young American missionary had no period for fourteen months after arrival in Madras; she was not ill, nor was she anaemic, but her periods were absent and her general health somewhat below par. She had felt the parting from home very much, and it was not until after careful treatment with electricity that her ovaries resumed their usual functions. On the other hand, not infrequently the relaxing effect of a hot climate causes a greater frequency or a greater abundance of the menstrual flow. In most

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instances, both of the *minus* and of the *plus* condition of the function, the normal will be reattained after a few months, and drastic treatment is not indicated; attention to rest, to diet, and regulation of the functions of stomach and bowels usually suffice.

PREGNANCY.

The young married woman should be taught how to recognise the early signs and symptoms of pregnancy, partly in order that she should take reasonable care of her own health and that of her unborn child, and also in order that she should early seek medical advice. The health sheet, which every missionary should have, finds one of its most useful functions when the examinee becomes pregnant. Should she be up-country, a considerable distance from any experienced doctor, she can send a letter describing the signs and symptoms that make her think herself pregnant, and enclose the health sheet, so that the doctor she wishes to consult is able to judge what arrangements it will be wise to make for the woman's delivery. He will be guided by the recorded measurements of the pelvis, and will be able to ascertain at what time he ought to see his patient in order to judge of the relative size of the child and the pelvis. If the woman is so fortunate as to live in the same town or within easy reach of her doctor, a careful examination will be made and the growth of the child will be watched during the last two months of pregnancy, so that there may be no danger of a 10-lb. baby having to pass through a pelvis that is only adequate for the transmission of one weighing 6 or 7 lb.

The patient should send her urine for examination regularly once a month, so that the doctor may know whether it remains normal, what are the proportions of urea to water, what is the absolute quantity of urea excreted. He will also be able to detect the presence of abnormal constituents, such as albumin, sugar, and acetone. The presence of albumin does not necessarily indicate disease. It may be due to a vaginal discharge. Sugar is usually lactose, and is associated with incipient lactation, not with any of the causes of diabetes.

The pregnant woman must be advised as to the adjustment of diet to her condition, and probably, as a general rule, it will be found that English women have a tendency to eat too much meat, and to indulge too freely in strong soups and meat extracts. These articles of diet put more strain on the organs of excretion than they can well stand during pregnancy, and their evil effect is aggravated by a hot climate. It would therefore be better for pregnant women to eat liberally of bread-and-butter, milk, vegetables, and fruit, and to take but sparingly of meat.

Another important item in the advice that we ought to give to women missionaries during pregnancy concerns exercise. In trying climates, and more especially where extra exhaustion is caused by press of work and the care of little children, there is too little energy available for outdoor exercise. Luckily in most tropical climates life is lived almost entirely in the open air, a condition of things which goes far to compensate for disinclination to exercise and the exhausting effects of heat. It is, however, to be remembered that the tonic and stimulating effects of outdoor exercise are not entirely due either to the goodness of the air or to the muscular exertion, but largely to the psychical effects of change of scene and interest. It is therefore very important that some change of employment, and if possible of scene, shall be enjoyed daily.

Sleep and rest are matters of the greatest importance, and the daily siesta, copied from the custom of natives, is in no way a pandering to sloth and idleness. In all tropical and subtropical countries daily life and work begin even before the rising of the sun, and thus a day of sixteen or seventeen hours is the rule. The European woman who is bearing the double burden of pregnancy and ordinary work absolutely requires a couple of hours' rest in the hottest part of the day. Her conscience should permit her to sleep if she should be so disposed, but if not sleepy the hours of retirement are specially valuable for the refreshment of the mind and spirit. We are all too easily tempted to forget spiritual necessities and to under-rate the responsibility which we have for providing for the nourishment, refreshment, and development of that part of us which is destined to live eternally.

In all cases of pregnancy the expectant mother should

be informed as to the manner in which she is to provide for the welfare of her unborn child. Pre-natal influences determine very largely the welfare or misery of the individual, and the expectant mother should be helped to realize that on her well-being, on the nutrition of her body, and on the calm and cheerfulness of her spirit, depends in a large measure the welfare of her child.

The medical adviser of the pregnant woman must always remember the possible influence of the three great racial poisons, and should be watchful in protecting his patient and her child from their ravages. Missionaries and their wives might well be indignant that the doctor should think it necessary to protect them and their offspring from the evil influences of alcohol and of syphilis; tuberculosis they might admit is an unsought and an unmerited evil, but with regard to the other two, instructed and enlightened conscience would lead them to consider the barest suspicion of their existence as a disgrace. It must, however, be remembered that the treasure of divine grace is contained in earthen vessels, and that in some instances it is possible that the sins and follies of youth, long ago repented of and forgiven, may be latent through long years, and then awaken into new life and cause disaster. The wise physician will therefore make careful inquiry into the history of each case, both in the family and personal aspect. He will if necessary have the blood tested, especially in cases where there have been repeated apparently causeless abortions or premature births. The doctor who is tactful and discreet as well as competent will be able to do this without compromising anyone's good name, and will be prepared to administer the suitable remedy should any virus be present.

LACTATION.

Even in a tropical climate the rule should be for the mother to nurse her child. Lactation must be carefully watched, and it must be modified or interrupted should the mother's health make it desirable; but as a rule it is sufficiently well borne, and the advantage to the child is so great that it should be the rule and not the exception. The mother gains also by suckling her child, not only in the physiological involution of the uterus, in the checking of a tendency to too early repeated pregnancy, but also in the greater security of the child's health and consequent absence of anxiety that she enjoys.

LEAVE, HOLIDAYS, AND FURLOUGH.

In all missionary societies it is the rule that missionaries shall have a month or six weeks' holiday in the country every year, and that one year in six shall be spent on furlough.

A missionary who has just returned from Corea has given it as his experience that, unless the circumstances are very unusual, no term of service should exceed five years. He would divide missionaries into classes with reference to furlough—some who apparently require no furlough; some who are absolutely exhausted and played out at the end of five years; and an intermediate class who are indeed needing their holiday, but who can work to the end of their term of service and start for their holiday able to enjoy it. He was, however, of opinion that, even in the case of those who believed that they could work on and whose health showed no obvious deterioration, the power of work was really lessened, that their work suffered more or less markedly if the holiday were delayed, and that, therefore, permission to work an extra year should rarely be given. If these considerations are just for missionaries in general, they are even more cogent in the case of married women missionaries. They have probably been bearing a threefold burden—climate, work, and family; it would be poor economy indeed, both for the society and the individual, if these ladies were not sent home without hesitation at the end of each term of service.

ARRIVAL AT HOME.

It is very desirable that the married woman missionary should see the medical officer of the society on her arrival. He would read her health sheet, talk to her, examine her, and advise her. In this interview it is extremely desirable that the doctor should remind the missionary that the object of furlough is the maintenance of health and regaining of energy that will fit her for a further term of service. The dedication of the life to the special service of God in the mission field is usually intended to be the dedication

of the whole life and not merely of some portion of it; anything, therefore, which tends to unfit the missionary for service is a real, although an unintentional, disloyalty, and the acceptance by missionaries on furlough of any work or responsibility that interferes with their recuperation is to be deprecated. In this connexion it is necessary for the society also to exercise a wise care and discretion. In the eagerness of desire to kindle enthusiasm and to diffuse a knowledge of mission work, the organizing secretary is sometimes too anxious to get as much deputation and meeting work as possible out of the returned missionary. Individuals vary greatly in their capacity for this work, and while to one it is a pleasure and inspiration, to another it is a great ordeal and one that seriously interferes with health. As a general rule it may be taken that no returned missionary should be asked to take deputation work of any kind for the first three months after arrival; more especially is this necessary in the case of the wife and mother. It is difficult to realize the amount of wear and tear that a good housewife and mother has to undergo; the daily vigilance over family and household; the frequently recurring anxieties inseparable from family life in the tropics; and in some instances the annoyances inherent in the management of native servants and others, conspire to wear her out and to break down her nervous system. Such a woman requires all the available time of her furlough to build up her health and recover her strength so that she may be fit to return with her husband to the field. These, then, are the reasons why the medical adviser should carefully inquire into home circumstances, and as to how the wearied missionary proposes to spend her holiday. He should tactfully and sympathetically indicate that the object of her furlough is not that she should relieve some other over-burdened member of her family, nor that she should constitute herself sick nurse and guardian, but that she should in the first instance do her duty to her society, her husband, and herself.

Not infrequently the medical adviser will find that his patient is a worn and delicate woman with five or six little children, and that, thankful as she is to have the prospect of a better climate, she is somewhat nervous and doubtful of her power to cope with the active healthy little ones without the help of the servants to whom she has naturally been accustomed in the tropics. Native ayahs and bearers need a great deal of supervision, but they are, at any rate, hands and feet, and they are very generally kind and devoted to their little charges, but the English home of the returned missionary is frequently all too small, and the service leaves much to be desired; consequently, the children are much with their parents, and the tired mother spends a great part of her much-needed holiday in washing and dressing the children, in sewing for them, and even in wheeling the perambulator for one or two, while others hang on to her skirt. It would really appear as though some guild or association should be formed to afford help under such conditions. The parents would not like to part with their little ones, but it might perhaps be possible for young ladies gifted with missionary zeal to form themselves into a guild of help, the members of which would be available to live with each missionary family and assist in the care of the children. An alternate scheme might be the collection of a special fund for increasing the missionaries' incomes during furlough, so as to enable them to make their own arrangements for such assistance as they found necessary.

Before the return to the field the married woman missionary should be seen by the society's medical adviser, who should be satisfied as to her fitness for return, and enter on the health sheet any observations that may be necessary.

THE Henry Saxon Snell Prize will be awarded this year by the council of the Royal Sanitary Institute for an essay on "Suggestions for Improvements in the Sanitary Arrangements and Appliances suitable on Board Ship for (a) Passengers and Crew, (b) Cattle and other Live Stock." It consists of 50 guineas and the silver medal of the institute. The essay, which must not exceed 5,000 words in length, is to be typewritten on foolscap, one side only, and to be illustrated by drawings or sketches. Essays must be delivered on or before November 1st, 1915, addressed to the Secretary of the Royal Sanitary Institute, 90, Buckingham Palace Road, London, S.W.

TRAUMATISM AND TUBERCULOSIS.

BY

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It is now several years since my attention was first directed to the relation of injury of the chest wall to pulmonary tuberculosis.

A healthy girl, aged 17, while crossing a street in Newcastle, had been knocked down by a cab. Her chest was injured, but no ribs were broken. An hour or so after the accident she had haemoptysis. When I examined her, three months after the accident, there were signs of advancing pulmonary phthisis; cavitation was limited to the right apex, the side of the chest which had been injured. She gradually but quickly emaciated, cough became more frequent, accompanied by muco-purulent expectoration, and haemoptysis kept recurring from time to time. Death came within two months of my first seeing her.

On the occasion of her first visit I was struck by the fact that a girl, said to have been quite healthy until the day of the accident, should show so shortly after the injury signs of pronounced phthisis. Since then several similar cases have come under my observation, and are not without interest from the point of view of the liability of employers for accidents under the Workmen's Compensation Act. The subject of traumatism and tuberculosis is, therefore, one upon which it is well for all of us to have a definite opinion.

Eighteen months ago a mason's labourer, who had never lost time through illness, fell from a scaffolding a distance of 6 ft., injuring his right hip and chest against a brick wall. Little was thought of the injury at the time. The man at the close of the day's work walked a short distance to a railway station and travelled by train home. Nine days after the injury he had haemoptysis. From this he recovered and returned to work. Six weeks after the accident he complained of pain in the right chest. On examination, a doctor found evidence of pleurisy with effusion. Despite treatment, the patient gradually got worse. He emaciated rapidly. Within a few months he lost 4 st. in weight, cough became more frequent, and expectoration more abundant, while in the sputum myriads of tubercle bacilli were found. When I first saw him there was considerable dullness over the base of the right lung, but on an exploratory puncture being made no fluid was found. There were signs of rapidly advancing disease in the apex of the right lung. As the workman claimed damages from his employer, the case was heard in the county court. The patient, who was awarded full compensation on the ground that the pulmonary disease was the consequence of the accident, lived only a month or two after receiving the verdict in his favour.

While penning these notes I had under my care in the Royal Victoria Infirmary a miner who, when emptying a railway wagon, fell over the side of the wagon, bruising his right chest against the grease-box. Within two hours after the accident he had haemoptysis, but notwithstanding this he continued at work a few hours longer. That evening he did not sleep well; he was restless. Next morning the bleeding returned and continued for four days. Cough subsequently developed, with signs of pulmonary disease, accompanied by the presence of tubercle bacilli in the sputum. Cavitation of the apex of the right lung occurred, and while at the time these notes were written the patient was progressing satisfactorily under the open-air treatment on the balcony of the Infirmary, he died a few months afterwards from advanced pulmonary tuberculosis.

How are we to connect the fact of injury to the chest wall of a previously healthy person with subsequent tuberculosis? The lung disease so clearly and definitely follows the injury that there must be some connexion between the two. It is not only in affections of the lungs that the sequence of tuberculosis to injury is observed; it is seen also in affections of the joints and bones, the interesting fact being that frequently the accident is said to have been of such a slight nature as not to have attracted the attention of the patient or his friends at the time. In nearly all the instances of pulmonary tuberculosis following injury which have come under my care the injury has been of a serious nature. A sign that the lungs had suffered was haemoptysis occurring an hour or two after the accident. In some patients the bleeding did not show itself until two or three days after the accident; in the case of the mason's labourer reported, bleeding did not take place until the ninth day, but whether haemoptysis occurred early or late the after-events were the same in all, namely, pulmonary tuberculosis running rapidly to a fatal termination.

MM. Georges Brouardel and Leon Giroux¹ state that Jeannel found 5.5 per cent. of the cases of tuberculosis