

EDITORIAL.

MANY names can be added to our list of heroine nurses by the splendid courage of those women who remained at the post of duty during the terrible air raid which took place last month when the Germans bombed one of our military hospitals in France. The scene of the disaster was a big hospital camp composed of many huts and known to the enemy as being such, not only by its conspicuous marking with the scarlet Red Cross displayed in signs and flags, but, because they had often seen it, and had it well located within their minds. The night was one flood of brilliant moonlight when squadron after squadron flew over and dropped large bombs on the huts which were nearly all full of badly wounded men who were mostly helpless to assist themselves and to whom movement was an agony; some of the raiders flew very low and raked the huts and staff-quarters with machine guns. There were several hundreds of casualties amongst the patients, orderlies and nurses. We read with pride and profound emotion the description of the behaviour of the nurses under the terrible ordeal. "Throughout this terrible time, the raid occupying two hours, not a single nurse sought cover. They moved up and down the wards encouraging and helping the patients, attending to the gravest cases and lingering at the bedsides of the men already suffering from shell-shock. The heroism and superb devotion of these women has never been surpassed throughout the war, and no eulogies could fittingly pay tribute to their conduct amidst the piteous scenes, in spite of their own inevitable terror." Nurses have indeed added another white link to the bright chain which is being forged by them for the sake of suffering humanity. They conquered so finely their own feelings for the sake of those helpless ones in their charge; so gallantly did their duty under the fiery trial. We feel that the figure of the Great Sustainer was amongst them helping them to courage and endurance through those two ghastly hours when terror fell from above. They have left us an ideal to which many of us can but faintly rise, those fine heroines who dead, dying, wounded or whole showed their true love for humanity by supreme service; they have reached that sublime height of achievement which is recorded in the Book of Life, "Greater love hath no man than this that he will lay down his life for his friends."

CONTRIBUTED ARTICLES.

IMPROVEMENT OF THE CONDITIONS OF CHILDBIRTH
IN INDIA.

BY MARION A. WYLIE.

I N order to draw up any scheme for the improvement of the condition under which the vast majority of children enter life in India, it is necessary to know as much as possible of the conditions which actually exist, and of their cause.

No scheme would be worth consideration which was not practical, and to evolve a practical scheme, one must first of all realise that many of the existing conditions, though much to be deplored, are the inevitable outcome of centuries of superstition, poverty and ignorance, and will be as difficult to remove as the consequences of such conditions must be in a land still fast bound by the rigid laws of caste and custom. These laws though they are perceptibly relaxing are still in some parts of India insurmountable obstacles to the path of progress, and it will take years of patient teaching to change them. Any scheme which does not take them into account is doomed to failure. They are regarded as obligatory and absolutely essential to the well-being of the people, and to ask a Hindu to break away from them is to ask him to commit an unheard of crime against society. Compared with Hindus, Muhammadans are easier to deal with. They have not the fixed unalterable laws of caste, but they adopt and practise many of the customs which are detrimental to the life and health of mother and child.

Here let me say that I can only speak for Nagpur and for this part of the Central Provinces where I have worked. And here, too, I may say that I consider it quite impossible to formulate any scheme which could be applied to the whole of India, or to any large part of it. Conditions and customs are so different even in neighbouring districts, that improvements which could be easily carried in one, might be wholly impracticable in another. So that each province or section of a province must work out a scheme of its own.

One of the most potent factors which militate against healthy conditions of childbirth, is the rule laid down by caste, that a woman is in a condition of defilement until ten days after delivery. This fact in itself might not have any untoward effects on the state of mother and child if it meant only that they are deprived of the services and care of their own caste people during that period. It might even be counted a factor to the good for it would, and does allow of trained midwives and nurses, Christian or other caste being allowed to render assistance. But, unfortunately, in the vast majority of cases such help is unavailable and the result is the time-honoured custom of seeking the services of the low caste *dai*, and the shutting off of mother and child in a dark, airless corner of the house.

What do we find when we are called to a labour case in the average Indian home? A small dark room devoid of all means of entrance for light and air. The narrow low door, causing us to bend nearly double, is carefully screened with matting and sacking. The window, if there is one at all, is closed with wooden shutters and any chinks are stopped up with paper or rags. The bed, though one is often not to be found, is in a corner, and is hung round closely with heavy purdahs to guard further against any chance breath of air reaching the patient. Old clothes, mostly filthy from age and use, often soaked with discharge, cover the bed or the floor on which the confinement is about to take place. A small "dip" is burning giving the only light there is and filling the air with smoke, to add to the discomfort of the already vitiated atmosphere. Hot water has not been thought of, nor are any vessels to be found for washing

one's hands or cleansing the patient, until after long delay and many reiterated demands. Clean clothes are not forthcoming to act as pad or binder, and there is nothing ready to wrap round the newly born infant or to replace the wet and bloodstained garments of the mother. If the case is a moderately quick one, the *dai* is not called upon to do anything but cut the cord as soon as the child is born. This she does with a knife which is not kept or cleaned for the purpose, but is encrusted with the rust or dirt of years. In some cases the cutting is done with a split bamboo, said to be a fertile source of tetanus. She then massages the abdomen of the patient, sometimes making her stand up against the wall for the purpose, till the placenta comes away. The placenta is covered with salt and burned, or buried in a corner of the room. A very tight roll of cloth is then wound round and round the mother's waist with the object of keeping the uterus in the lower abdomen, but it is applied in such a way that it has no effect whatever in supporting the muscles of the abdominal wall, or in aiding contraction. The *dai* then inserts a vaginal tampon composed of a mixture of salt, gur and huldi. Often a pice is inserted also. Sometimes the tampon is composed of cotton wool (which has probably served previously as the stuffing of a quilt or pillow) soaked in native spirits.

But these normal cases are comparatively safe from the intervention of the *dai*, as they are often over before her arrival. This was the case with more than half of the 2,500 cases reported to our *dais* during the current year. It is in cases of delayed labour that so much mischief is done by interference. It is unnecessary here to cite instances such as we have all met with, of foetal arms pulled off, rupture of the uterus, lacerated cervix and perineum and applications which result in partial or complete atresia of the vagina afterwards. It is enough to say that in almost all cases where redelivery is not rapid the *dai* is called upon to make several vaginal examinations beforehand with the object of foretelling when the child will be born. This she does with hands unwashed and anointed with some unaseptic lubricant, usually either castor oil or sweet oil. When delivery is over, if the placenta does not come away within five minutes, she does not hesitate to plunge her hand into the uterus and remove it.

The infant's cord is dressed with either huldi, or charcoal, or red earth. The child is not put to the breast for three or four days. Meanwhile it is fed on either fresh or condensed milk, often on a rag leading from the milk vessel. A loathsome practice here is to give it *gur* mixed in its own urine. Sometimes it is given native wine. No wonder the mortality within the first fifteen days is so high.

The mother is usually starved for the first four days, and her milk is consequently long in coming and of poor quality. She cannot be attended to by her relatives until after the tenth day, and has to depend on the daily visit of the *dai*. Urine and faeces are passed into a *lota* which remains under or beside the bed until the *dai's* next visit. But as a rule the patient rises and attends to herself on the third or fourth day.

These conditions are by no means confined to the poorest or most ignorant classes. I have attended the families of rajahs, where many of these practices

were carried out, and met with the most strenuous opposition when I have introduced ventilation and aseptic measures. The opposition came, however, only from the women of the family, and by appealing to the men, who had been educated in some instances in England, I had my way.

This suggests the first step in any measure for reform. Let us educate the women. Compulsory education will doubtless come for girls by and by. But meantime, in those girls' schools, which do exist, and in all boys' schools let us insist on hygiene, simple physiology, and domestic science.

Secondly, let us educate public opinion on the subject of child-marriage, so that what was an inviolably sacred custom may become as unlawful as widow-burning or female infanticide.

Then, whatever steps we take to reform the present conditions of childbirth will meet with some response from the patient herself, and what is even more important, from the mother or mother-in-law, and from the other women of the household.

When I speak to my *dais* on the subject, e.g., of the treatment of the third state of labour, they say, "Miss Sahib, these women will not listen to us. If we will not put in our hand and pull out the placenta, they will send us away and call another *dai*." When I ask why such and such a baby died, and receive the usual story of vomiting and diarrhoea and wasting away, they again say, "They would not listen to us. They would not let us put the baby to the breast, but gave it their own mixtures, and so it died."

So that until the whole community is educated to the point of accepting our advice in treatment, all our efforts at improvement will meet with but little success.

But undoubtedly to anyone actively engaged in trying to lessen infantile and maternal mortality, the great problem is how to deal with the indigenous *dai*. In Nagpur she attends practically all the cases of labour among Indian women. Her calling is a hereditary one, and she passes on her practice to her daughters and daughters-in-law. Her methods being such as we have seen, the question arises—is it worth while to try to reach her at all, or should we leave her alone and set to work to train more promising pupils who will gradually take her place? In places where the calling is not hereditary, as e.g., in Jubbulpore, the *dai* might comparatively easily be ousted. But in Nagpur such a proceeding would take generations, though probably the sooner it could be done the better. The question would then arise, who is to take her place? At the present rate, the output of trained midwives yearly being practically negligible, we are simply providing no substitutes at all. In 1916 there were 4,229 births in Nagpur. Of these, 265 were attended by the doctor or nurses of the Mission Hospital, 90 by the Dufferin Hospital, a negligible number by Indian practitioners, and the rest by *dais*. Of this remainder 2,499, over 64 per cent., were attended by the *Maug dais* whom Dr. Agnes Henderson has taken in hand, and whom I, at present supervise. In Lady Dufferin's day this attempt was begun. Our Nagpur figures show the result after a quarter of a century of work, but it is only within the last few years that anything practical has been achieved.

From these figures we see that the *dai* is practically the only midwife the majority of women employ. For one thing she is the only one they can afford. The doctor and the trained nurse will continue to charge high fees, and so will be beyond the means of the poor, until that happy time when Government can provide and pay sufficient trained midwives to go round. But these figures also show that the majority of these *dais* are willing to learn better methods.

The course we adopt in Nagpur, is to bring the *dais* twice a week to report their cases. These cases are inspected twice during the first fifteen days by trained midwives. The *dais* are paid for each case reported. They are fined for the death of either mother or child. They receive an additional reward if they call in skilled assistance for a difficult case, or if they bring the case to hospital. In this way the *dais* have come to believe that we are their friends and not their enemies, as they thought at first. The instruction we give them is of the simplest and it is mainly regarding cleanliness, and the need of realising before it is too late when a case requires skilled assistance. We do not set much store by examinations, but judge rather by the results of inspection.

Dr. Henderson's idea has been "not so much to give a course of instruction to *dais*, examine them, give them certificates, and let them pass out, but rather to keep in touch from year to year with all the *dais* who are willing to come, inspect their cases, give them simple instruction for some weeks annually, have talks with them on current topics (*e.g.*, small-pox or plague) or any special difficulty in connection with the maternity cases reported by them, and also to get into touch with their children."

She has established a school which is at present attended by about thirty Mang children, and part of the routine is hand-washing and nail-cleaning, in view of their future profession. Sir Pardey Lukis' manual is used as the *dai's* text-book, though much has to be omitted as it is beyond their grasp.

The work is financed by the Victoria Memorial Scholarships Fund, the Nagpur Municipality, and partly by Dr. Henderson personally. I have come to the conclusion that several of the younger women among these *dais* would be willing to come into our hospital for training, and would make capable midwives, if it were made worth their while to give up their present mode of obtaining a livelihood.

In Jubbulpore, the Victoria Memorial Scholarships Fund gives a grant of scholarships. At present, four women undergo training for one year and each receives Rs. 6 per month. If this could be done on a larger scale, and if the daughters of *dais* could be made the recipients of such scholarships, the mothers, and in time the daughters' own children would benefit, and gradually the effect of training would be felt by the whole caste or profession.

In Berar, Government scholarships have already been established for the general education of the children of the *dai* class "to render them more receptive of progressive ideas when they grow up and take to their hereditary profession." These scholarships could, with benefit, be carried on to a course of training in hospital. Then, in order to keep them in touch with their training hospital, scholars might be paid a small sum monthly when they start practice.

Rewarding them for each case they brought to hospital would answer the same purpose in a better way. A simple outfit might also be supplied to them, comprising blunt-pointed scissors to cut the cord with, ligatures for the cord, soft linen to dress it, catheters, enema syringes and antiseptic lotion. But such appliances should be entrusted only to those who have received a full course of training in hospital, who report their cases afterwards for inspection, and who satisfy their inspectors that they put in practice the antiseptic methods taught them during their training.

It seems even now that the time is ripe for compulsory registration and inspection. For registration of all *dais* an Act of Legislature seems necessary. The Jubbulpore Municipality has, however, recently introduced a licensing fee leviable on all practising *dais*, which serves the same purpose. In time it would be possible to register only those *dais* who have received a course of instruction. Until such time as fully trained women are plentiful enough to go round, a trained midwife should be established in each area, who would be a reliable inspector, and could also give help in difficult cases. Inspection should extend not only to the patient and child, but to the *dai* herself, her clothes, hands and nails, and her appliances.

A list of registered *dais* could be put up in tahsils, octroi posts, etc., for the information of the public.

The public should be educated by lectures to employ active and clean *dais*, so that the dirty and unfit would be gradually eliminated.

Dais should also be encouraged to report ante-natal cases. Too often the weakly condition of the infant at birth is due to the ill-health and ignorance (to say nothing of the youth) of the mother. Disease, especially venereal disease, plays a principal part in producing abortions, premature labours, still births, and the weakly children that soon succumb to post-natal conditions.

It is very necessary, therefore, that means should be established to bring expectant mothers under supervision and regular treatment. Maternity centres for this purpose are urgently needed and could be run in connection with existing dispensaries.

The indigenous *dai*, if she received a small reward for her trouble, could bring numbers of patients of the most needy and urgent description.

It is contended, however, that "the prejudicial influences on infant life are more serious after than before birth. In other words, the surroundings or external conditions into which a baby is born have a greater influence for good or for ill on its vitality than the health of its mother and the possible incidence for disease on the part of the father or mother before its birth." Be this as it may, it should in no way relax our endeavours towards establishing ante-natal clinics and maternity centres, but it should cause us also to redouble our efforts towards improving the surroundings into which the infant is born. Milk depôts, baby clinics, infant health visitors, infectious disease hospitals with provision for puerperal fever cases and their babies, all will help.

But the problem will still remain, how to induce the ignorant and superstitious mother to take advantage of them. Lectures and pamphlets do not

reach her, and their teaching and advice are overruled by the fears and prejudices of the older women of the household, who will not depart from the laws and customs of centuries. She can only be reached through the *dai*, the invariable attendant at the function of childbirth. Educate the *dai*, therefore, as far as she can be educated, until such time as her place can be taken by more intelligent workers. Let every *dai* who has a licence to practise know at least the main facts regarding the care of infant life. Let her not be a loser by reporting the condition of the infants under her care, and she will be the friend and helper of our efforts towards improvement, instead of being an obstacle in our path of progress.

The question of means must be faced. Every scheme will cost money but one considers the present fee which the average *dai* earns (in Nagpur among the poor it is 10 pice for the birth of a boy, 5 pice for a girl; among the well-to-do, Re. 1 for a boy and 8 annas for a girl), a very small reward will make a large addition to her income. Ante-natal and post-natal clinics or maternity centres if run in connection with existing dispensaries would cause little extra expense. The money laid out in founding scholarships and in providing the salaries of trained midwives and inspectors could not be invested more profitably, and the State would soon benefit materially by the results.

Undoubtedly there is great need for research on all the problems which face us regarding this fundamentally important subject, and it will doubtless be some time before the question can be solved as to which influences are most at work in causing a high infantile mortality.

But meantime everything should be done to lessen or prevent their incidence, and the means of meeting this expense also should be freely provided.

These are matters not only for medical officers and the medical profession and for municipalities, but for Government itself.

In the United Kingdom, the mortality of children under one year of age was 10% in 1914. In Nagpur infantile mortality in 1916 was over 30%. The majority of the causes given in both cases were preventable. Lord Rhondda, during his short tenure of office as President of the Local Government Board, declared his determination to save the lives of 50,000 infants every year by improved legislation. Surely then we in India could do vastly more to put a stop to this, one of the most serious drains upon the vitality of the Empire.