Among the military population continued fevers have always been very common—much more so formerly than now. At one time the troops suffered so much from continued fevers that nearly half of the total number of deaths was caused by them. Dr. Parkes states that in the ten years 1837 to 1846 there were 1,004 cases of continued fever out of 11,224 men, or 88 per 1,000 of strength; while in 1859 there were only 11 cases out of 1,074 men. Many of these were unquestionably enteric fever; a large number of them were treated in the wards of the Naval Hospital, and several of the fatal cases revealed the typical bowel lesions of that disease. In 1874, out of a strength of 1,866 men, there were 13 cases of enteric fever, of which 3 were fatal; while of simple continued fever there were 63 admissions, without a death. In 1877 there were 12 cases of enteric fever treated during the summer months among the military people, but only 1 proved fatal. Similar statistics have continued to the present date. The sanitary arrangements among the troops are excellent; the water supply is good, consisting of rain water collected in tanks, with very small chance of becoming infected. Enteric fever among the troops I always believed was contracted at the grog shops and other native houses, where the well water is very frequently impregnated with fecal impurities percolated through the porous soil from adjacent cesspits.

Between 1862 and 1878 there were 72 cases of enteric fever treated at the Naval Hospital, of which 12 died, being a mortality at the rate of 16.6 per cent. Whereas in the same period of 301 cases admitted as simple continued fever only nine died, being at the rate of 0.3 per cent. only. On the other hand, of the total number of 1,261 cases admitted before 1862, and returned as continued fever, 119 died, being at the rate of 9.43 per cent., a difference in the mortality which can only be accounted for by the greater severity of the fever, and, as shown, that was due to a large proportion of them being really cases of enteric fever.

It is evident from the foregoing observations that enteric fever is the fever chiefly prevalent in Bermuda, and from the knowledge we now possess of the causation and diffusion of this disease, it is clear that it is kept going in the islands by a continuity of cases among the natives themselves, who use cesspits with porous walls, or throw their excreta on the surface of the ground around their dwellings, thus permitting the easy pollution of their wells, and rendering the water unfit for drinking purposes, but which is, nevertheless, largely used by soldiers and sailors at the grog shops and other native houses.

It is easy to understand that after long continued drought when tanks, casks, etc., become empty, and the inhabitants fall back upon the impure contents of their wells, enteric fever would follow. As these wells are at some distance from each other, and there are no running streams in the country, an epidemic of enteric fever could scarcely assume any but very limited proportions, and could easily be controlled by the most ordinary sanitary precautions with regard to the disposal of the ejecta of infected persons.

ARE MIDWIVES TO BE ABOLISHED OR BETTERED?

Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association, held in Birmingham, July, 1890.

By JAMES H. AVELING, M.D.,
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THIS is a question the solution of which becomes more necessary every year. It is a difficult one, and to answer it fairly and effectively it must be approached patiently and without partisanship.

As far back as the world's records reach we find midwives existing. Every European country except our own has given them a legal status. Until the middle of the last century our "sworn midwives" (as they were called) were licensed, and in cases of misbehaviour suspended, by the bishops. Now they may exercise their calling without restraint, and any old woman may impose upon the public by professing to be competent to attend confinements.

The recurrence of accidents and deaths in childbirth caused by these ignorant women has at length aroused attention, and the general public, the medical profession, and the better class of

midwives have determined to deal with the question in a prompt and efficient manner. It must now be decided whether midwives are to be done away with or improved.

Before considering these alternatives, I will give a few figures which I believe to be approximately correct. The probable number of women acting as midwives in England and Wales is from 10,000 to 15,000. The population is 30,000,000, and the number of births per annum, calculating them at 30 per 1,000, is 900,000. Of this number, midwives attend 60 per cent., that is, 540,000. Of the total number of women confined, 4,500 die each year in childbirth, that is, 2 out of every 100. The deaths of women in childbed who are attended by skilled midwives and medical men amount to only 1 in 600. In unskilled hands these mothers die at the rate of 3 in 600. By educating midwives, therefore, the mortality in childbirth might be reduced from 4,500 to 1,500, effecting a saving annually of 3,000 valuable lives. No one who believes these figures to be any way near the truth could be so apathetic and heartless as to allow the deathful work they discover to continue without attempting to remedy it. Which is it to be, then, educate or eradicate? I have not yet heard of anyone suggesting the annihilation of midwives; wild schemes are often proposed, but the carrying out of these would probably be beyond the powers of Crown, Lords, and Commons. It would almost be as easy to abolish the process of parturition itself.

There always must be a demand for midwives among the poor. The midwives most required are those who, besides attending the confinement, will wash and dress the child, and perform the offices of a monthly nurse. Women of this sort can be no rivals to medical men. The paying classes will always prefer the services of a qualified practitioner. The cases attended by midwives he will always be better without. A good midwife will save him hours of tiresome waiting amid physical and social discomforts, and prove a blessing to him by relieving him of the most arduous and unremunerative part of his practice. The medical profession have always wished for a better class of midwives. The lying-in hospitals have for many years instructed midwives. The Obstetrical Society of London, which represents the midwifery interests of this country, and would naturally be jealous of any rivalry, have for a long time worked in every way to improve these women. The British Medical Association, through its Parliamentary Bills Committee, has devoted a large amount of its energies in the same direction. The editorial support of the medical papers has been given without stint and with no uncertain sound; and the movement has received the sanction and support of the General Medical Council. It must be conceded, therefore, that the preponderance of medical opinion is in favour of the betterment of midwives, and it only remains to decide how this can best be done.

1. We want a ready and inexpensive method of instructing women in elementary midwifery.
2. We want local examining boards.
3. We want licences granted to midwives.
4. We want these licences registered.

These can only be effected by an Act of Parliament, and many Bills have been drafted endeavouring to provide for these wants. The amended Bill now before Parliament is the most perfect yet produced, and, if it be passed, it will answer the question as to the betterment of midwives far more effectively than any words of mine. It provides for the examination, licensing, registration, and supervision of midwives. The examination is to be conducted upon rules framed by the General Medical Council. The licence is to entitle women to act as midwives "in cases of natural labour only," and the registration clause provides that "a person shall not be entitled to take or use the name of midwife, or any name, title, addition, or description implying that she is registered under the Act." Clause 4 of the Bill enables the Privy Council to provide for suspending or erasing from the *Midwives Register* the names of women who have been convicted of disgraceful conduct, malpraxis, or breach of regulations.

Public safety demands nothing less than is contained in this Bill. Without registration how is it possible for the humbler classes to tell by the card in the window, the board on the house, or the plate on the door, whether the owner is an efficient midwife or an ignorant pretender? The chemist, ship captain, and others who have lives dependent on their skill have to prove themselves competent before they are allowed to undertake their responsible work. Why should a midwife, who has at every confinement two lives dependent on her skill, be permitted to follow her calling without having previously given proof of her competency?

I will conclude these few remarks by quoting the following words from a report of the late Registrar-General, Dr. Farr. He says: "The excess in the number of deaths from what have been called the accidents of childbirth tells strongly in favour of the efforts that are being made for the education of the midwives by whom so many of the women of England are attended. Until lately, it was assumed that midwives were born, not made; their professional education was wholly neglected or left to chance, and still rests on an unsatisfactory footing. The law of Nature is that women shall bring forth in 'sorrow,' not in death."

THE REGISTRATION OF MIDWIVES AND THEIR POWER TO PRACTISE INDEPENDENTLY OF THE PROFESSION.

Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association, held in Birmingham,

July, 1890.

By ROBERT REID RENTOUL, M.D.,
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I SHALL first notice, and try to answer, the statements put forward by those who think that there should be a State recognition of a special class of midwifery practitioners.

1. That the fees charged by doctors for confinements are too high. It may be safely laid down that the fee charged by a doctor who practises among wage earners is fixed by the midwife. In other words the midwife's fee is the lowest fee; and so he has to come down to it. It is a matter of business or competition. The midwife's fee varies from 5s. to 20s. Some doctors employ qualified or unqualified assistants, and, therefore, are the more able to compete. The Derby Friendly Society Medical Aid Association lately advertised for a medical officer who would be paid at the rate of 5s. 3d. per confinement.

On July 24th, 1847, the Poor Law Commissioners issued an order, in which it was stated that guardians were given the power to pay their medical officer a fee varying from 10s. to 40s. for attendance on a confinement, or immediately after a confinement. Some Unions carry this order out; others make their medical officers contract themselves out of it by signing an agreement when they are appointed; while other Unions engage a midwife to do the work at a lower fee than 10s. Thus the Islington Union pay the midwife 7s. 6d. per confinement; Exeter, 5s.; Isle of Thanet, 5s.; Bristol, 5s.; Thingoe, 5s.; Stepney, 5s.; St. Pancras, 6s.; Whitechapel, 6s.; Norwich, 4s. Thus the system of downward competition is introduced, and with the result that many poor women are made invalids for life, and special hospitals are filled with chronic uterine disorders and ruptured perineums. Cheap labour is generally badly performed labour. The incomes of manual wage earners are increasing steadily, and they should now depend less on the charity of others. Taking all these facts into consideration, can we not dismiss the argument referring to high fees? Does anyone suggest that the future midwives are going to accept smaller fees than now charged? For my part, I feel that if the future pupil midwife is made to undergo a more expensive education, her labour must be rewarded by higher fees. There are a few well-to-do doctors who hold that a practitioner should not accept a smaller midwifery fee than from two to five guineas. But if a young man accept fees of 10s. or 15s. from a class of the community whom he knows cannot pay more, if he wishes to improve the very imperfect training which he has received at college, if he prefers to work instead of leading a lazy life, surely such a man is to be encouraged. It is, moreover, to be remembered that there are many men who make an honest livelihood with these fees. The midwifery fees are not now excessive, and a new order of midwives, if thoroughly trained, cannot afford to give their labour at the low rate of pay now in force.

2. That there are from 10,000 to 13,000 midwives in England. The 1881 census returns showed that there were only 3,000. In 1868 the Obstetrical Society collected a few statistics and published them in vol. xi of their *Transactions*. But circumstances have altered greatly since then, and the demand for midwives has decreased enormously. Even in France, our representative in 1875 reported in the following words: "At the present time medical men attend a great many more deliveries than formerly, and are gradually taking the place of midwives, especially in towns." Dr. Maccabe, of the Irish Local Government Board, tells

me that there are 325 midwives engaged by the Irish Poor Law, and that each midwife is paid on an average £16 4s. per annum—not so much as a general servant. I have written to over 400 English Poor-law Unions which have over 300 inmates; only 115 replied. Of these 82 do not employ midwives while 18 do employ them and 15 employ nurses who act as midwives. I wrote to 61 Scotch Poor-houses, and find that 7 employ midwives and 24 do not. I have counted in the local directories of nineteen of the large towns in the United Kingdom the names of all those entered as midwives, and find that there are only 424. (These figures are incomplete; but they go to show, in part, at least, that most misleading and exaggerated statements have been made as to the number of midwives. Naturally there are most midwives in those towns possessing a lying-in hospital, and in which pupil midwives are trained.)

3. The third argument I take from the prospectus issued by the Midwives' Institute: "It is calculated that seven out of every ten confinements take place without the presence of any medical man." According to the Report of the Registrar-General for 1888, 878,863 births were registered. Therefore, from the above statement, we are asked to believe that 659,901 labours took place without, and only 216,967 were attended by a medical man; that is, the 18,000 medical practitioners in England and Wales attended only twelve confinements each per annum! If midwives conducted the remaining confinements, then each of the 10,000 midwives had sixty-five cases in the year. But we know that a great number of confinements are conducted by unqualified assistants and by medical students when taking out their cases.

4. That there is not a sufficient number of medical men. The Fourth Report of the Statistical Committee of the General Medical Council showed that there was, in 1886, 1 doctor to every 1,662 persons, these including paupers, criminals, lunatics, and those attending our medical charities. Supposing half of the 1,662 are females, and that half of the females are between the ages of 21 and 45, and that one quarter of these are unmarried, and therefore not requiring the aid of an accoucheur, this will give us on an average 1 doctor to every 312 women.

5. That there is not a sufficient number of medical men in the country districts. The report above referred to states that there was 1 doctor to every 2,199 acres. (This proportion does not, of course, include unqualified assistants, hospital dressers, etc.) But although it has been stated that there are not sufficient country doctors, I have not heard of any midwives who propose practising in these localities. Indeed, I rather think they will congregate in the towns.

6. That the death-rate among women attended by skilled midwives is 1 in 600, while with unskilled midwives it is 3 in 600. The Registrar-General's Report for 1888 states that in one year there were 4,160 maternal deaths from the "accidents of childbirth," or 4.73 maternal deaths to every 1,000 births. All know how very deceptive the figures relating to childbirth mortality may be, owing to the fact that one defines "puerperal period" as 7 days, another 14 days, a third 21 days, while the Registrar-General says it should be 31 days. The death-rate also varies in different countries: 1.42 in Huntingdonshire to 7.49 per 1,000 in North Wales. I would suggest that this death-rate variation is due to a great many causes, and I should think that it will be found to vary with the number of unqualified assistants employed, and with the condition of health of women before marriage. Even the greatest supporters of the Continental system of midwives have not attempted to show that the puerperal death-rate abroad is less than in this country.

Having examined some of the arguments put forward by those who are in favour of bringing in a new class of midwifery practitioners, I shall ask your attention to a few other points. The prospectus of the Midwives' Institute tells us that "confusion exists in the public mind as to the difference between midwives and monthly nurses." It says: "The midwife undertakes the cases herself without a doctor, and is, in fact, engaged instead of one." Now, if midwives are to conduct all the "normal labours" as defined in Clause 6 of the amended Midwives Registration Bill, would it not be better if someone defined the term "normal labour?" And here I would say that the term "normal presentation" should be substituted for that of "normal labour." Spiegelberg says that only those presentations are normal when the vertex presents. Barnes, on the other hand, quotes Naegele as saying that presentations are normal when the long axis of the child nearly corresponds with the long axis of the pelvis. If the latter is so, then midwives would be qualified to conduct vertex, brow, face, breech,