

*Sterilisation from the Eugenic Standpoint, with Heredity Statistics from the Long-Grove Asylum Clinical Records.* By GEOFFREY CLARKE, M.D., Senior Assistant Medical Officer, Banstead Asylum.

THE study of eugenics is attracting an increasing amount of attention and interest from scientific men, legislators, and society in general.

The field of psychiatry and mental degeneracy is undoubtedly one of the most important from a eugenic point of view ; several papers have recently appeared in the *Journal of Mental Science* bearing directly upon this question.

Lay members of asylum committees and people interested in social reform and Poor Law work are almost feverishly anxious for drastic measures to be adopted to prevent the multiplication of the unfit. Their position is somewhat as follows. Official records clearly prove that insanity is increasing by leaps and bounds and out of all proportion to the increase of the population. It is practically universally admitted, and there is overwhelming evidence to show that defective heredity is the most potent cause of insanity. Improvement in medical science and improved sanitary surroundings have proved more of a curse than a blessing from a eugenic standpoint ; by keeping alive the weaklings and by patching up both the physically and mentally defective, you favour the propagation of the unfit and tend to weaken the rule of nature which constantly strives for the survival of the fittest.

It is pointed out that breeders of stock and domestic animals do not allow the matings to go on indiscriminately, but carefully select parents with a view to the quality of the offspring desired, and that the unfit, the deformed and the diseased are not allowed to multiply.

In the light of these facts it is asked. Is it not our duty to do something for the improvement of the human race by preventing the insane, the feeble-minded and the mentally unstable from breeding ? The medical profession are urged to bring forth some scheme for the sterilisation of the mentally unfit which will stem the ever-increasing procession to our asylums and prisons.

If we reply that we are not yet in a position to recommend measures sufficiently drastic to be of any practical use from a eugenic point of view, we are taunted with not being up-to-date or progressive ; it is almost hinted that we are in league with the devil, whose evil machinations on the minds of men were not destroyed when he disappeared into the sea with the Gadarene swine.

Let us shortly review these points. In the first place there is no doubt about the increase of insanity. This can be seen at once by glancing at the Commissioners' Blue Book. Here you get a table showing the number of "reported" lunatics, idiots, and persons of unsound mind for a period of fifty years. In 1859 there were 36,762 known cases of insanity, or one to 536 of the total population. In 1909 there were 128,787 reported cases, or one to 278 of the whole population ; so that roughly speaking, there are three and a half times as many cases as there were fifty years ago, and during the same period the proportion of the insane to the general population has doubled.

The figures at first sight appear alarming, but it must be borne in mind that they only refer to "reported" cases ; they give no guide at all to the numbers of cases which we should regard as insane if we could apply our present tests and standards to the population of fifty years ago.

The harmless lunatic, and the village idiot whose quaint sayings and antics relieved the dreary monotony of country life a few years ago, are now lodged in suitable institutions and have become "reported" cases.

One of the natural results of the advances of civilisation is the increase of insanity. The more complicated life is made, the more regulations and conventions there are to be observed, the greater will be the number who fail to adapt themselves to the increasing complexity of their environment. Insanity is not a definite disease, but a variation from the average mental state ; there is no definite line between sanity and insanity, and even the shadowy line that exists is drawn at a different level according to different social surroundings. It varies in different countries, and is even different for urban and rural districts in the same country. Many mild mental cases can live a useful life on a quiet country farm but cannot tolerate the fierce life of a London slum. Society demands an increas-

ingly severe standard of sanity, and there is no evidence to show that lunacy is increasing out of proportion to those demands.

With regard to the improvement of medical and hygienic science favouring the survival and multiplication of the unfit and tending towards national deterioration ; this is a widely held opinion, and is constantly pointed out both in scientific and popular writings. It is a general statement which it is impossible to prove and equally impossible to refute. No doubt a greater proportion of weaklings are kept alive and reach the reproductive age, but every family physician knows of numerous cases where weakly infants and delicate children, whose early years are a constant source of anxiety, and who only survive on account of much care and attention, grow into strong, healthy adults.

Improved conditions have stamped out many epidemic diseases which attacked both strong and weak, and although doubtless the weak were more likely to perish, it is probable that many of the strong who survived were permanently damaged. Advances in medical science and the more enlightened treatment of disease have no doubt improved the general adult stock of the country, but it is accused of also keeping alive stock which, from a eugenic standpoint, ought to have perished.

The point is, has the advance in science tended to benefit or to impair the mental and physical qualities of the race? Are we as well off, from a breeder's point of view, as we were in the dark ages? Have we a larger or smaller proportion of mental and physical degenerates than the semi-civilised eastern nations, where the art of medicine means mysticism and where sanitation is unknown?

In one respect at any rate better surroundings and treatment have helped to increase the proportion of insane—the average life of those in institutions has been prolonged by their healthier surroundings even during very recent years, and this has caused an increased accumulation of chronic patients.

The arguments based upon the experience and methods of stock-breeders cannot fairly be applied to human beings. Breeders of pedigree animals, biologists, and experimenters on Mendelian and other lines are gradually collecting facts and formulating laws of inheritance ; they teach us of normal and abnormal

variations, they separate the hereditary characters from those due to nurture and environment, their work is invaluable to the student of eugenics, but they help us but little with the problem of insanity; they shed no light on the transmission of mental qualities, and are concerned purely with the physical. The pedigree heifer is probably a dement, the foxhound is a cheerful imbecile, the fleetest racehorse is often an irritable, dangerous rogue. Zoologists and breeders have some great advantages in the study of heredity. They can choose the parents, they can alter the nourishment, and exactly determine the environments; a single observer can watch and record in detail many generations of animals, but it is very seldom that an accurate record can be obtained of even three generations of human beings.

It should also be observed that breeders of special strains of animals and of pedigree stock do not propagate from the average animal, but only from the best, only from those who possess in the most marked degree those qualities which they consider desirable to transmit.

The question which is now being much discussed is this. Do we know sufficient about the transmission of mental disease to advise the State to say to certain people who are at present free citizens, "thou shalt not breed"? Is there reasonable evidence that we can materially decrease the normal increase in insanity without injustice to the individual?

Dr. Stansfield read a paper at Bexley last year dealing with heredity and insanity, which was published in the January number of this Journal.

He discussed the various causes for the increase of insanity, giving examples and quoting statistics emphasising the importance of heredity as a factor. At the end of the paper he puts this question and its answer. "How are we as a nation to overcome the evil and stem the flow of this rising tide?" To my mind there is but one remedy, and that is "sterilisation."

So Dr. Stansfield at all events has nailed his colours to the mast. He lays some emphasis on the disproportionate increase of pauper lunacy compared with that of private patients during the last thirty years, and attributes this to a growing recognition of the importance of heredity on the part of the better-educated portion of the community and an ignorance of the fact by the class which supplies the pauper

patients. He hints that it is possible that the well-educated with hereditary mental taint purposely refrain from breeding from the sense of eugenic duty.

There is, however, I suggest, another possible explanation for this disproportion. It is probable that thirty years ago much the same proportion of the wealthier classes were under certificate and in the care of friends as there are to-day, but it is quite certain that a far greater proportion of the poor have been put under certificate during recent years. Again, apart altogether from insanity, have the wealthy as a class increased in anything like numerical proportion to the poor?

Dr. Stansfield's paper was supplemented by one from Dr. Faulks on the sterilisation of the insane. He dealt with the surgical aspect of sterilisation, quoted the experience of American and Swiss observers both in respect to sterilisation and castration, and classified the several proposals that had been made as to suitable cases for surgical interference. The most stringent of these proposals, as far as we are concerned, is the compulsory sterilisation of all insane, imbecile or feeble-minded people prior to their discharge from an institution, and irrespective of whether they are regarded as recovered or not recovered. Dr. Faulks considers the proposal to be too drastic to obtain general acceptance at the present time; he points out cases, *e.g.*, psychoses due to trauma, exhaustion, post-febrile conditions, etc., which he thinks it would be unjustifiable to sterilise.

Dr. Ewart, in a paper on "Degeneracy and Eugenics," favours segregation as a means of limiting the multiplication of the unfit. He states that "the greater part of feeble-mindedness, insanity and criminality could be eliminated by segregation in one generation"; but he brings forth no evidence which justifies such a sweeping assertion.

In a recent number of the *American Journal of Nervous and Mental Diseases* a paper appeared in which the author worked out the inheritance of insanity on Mendelian lines. The cases quoted, although too few for any definite conclusions to be drawn, fitted into the Mendelian table remarkably well. But this is treating all the different disorders of the most complicated and delicate organ in the body as though they were a unit quality. It treats unsoundness of mind in human beings like the simple quality of tallness in sweet peas or coat colour in

animals. It would be as fair to work out a table of thoracic disease irrespective of what organ within the thorax was affected ; and it is not improbable that such a table might show figures which would fit in with Mendelian expectations of a unit quality.

One thing common to all these papers is the stress they lay on hereditary mental taint as a causal factor in insanity, and, as most observers have pointed out, the importance of heredity is understated in all available figures.

Anyone who works amongst the mentally defective or who studies the problem of insanity cannot fail to be convinced of the importance of heredity as a factor ; but can it be shown that any practical method of sterilisation would materially decrease insanity ? Is there a case for sterilisation from a eugenic standpoint ?

The present investigation was undertaken to see what proportion of our recent admissions would not have been born if our ancestors for the last three or four generations had sterilised every patient before he or she was discharged from the asylum.

With this object in view I have been very carefully through all the male cases that were admitted into Long-Grove Asylum in 1910, obtained as much history of them as possible, and have attempted to trace their insane relatives. The numbers so dealt with are too small to draw any very definite conclusions, but the figures are certainly not without interest. During 1910, 324 men were admitted into Long-Grove ; out of this number in 88 cases no history was obtained, or such history as was obtained was grossly defective ; of the remaining 236 cases 118 gave a family history of mental defect (excluding nieces, nephews, and offspring), which works out at exactly 50 *per cent.* In 65 cases there was a history of insane heredity, 34 being direct heredity and 31 collateral. The large majority of these 34 insane progenitors were certified, but supposing they had all been sterilised before they had been discharged in only 3 cases would it have prevented the appearance of the patient under consideration ; in all other cases the patient (or his parents or grandparents) was born prior to the certification of the insane progenitor. In two of these three cases even it is doubtful whether sterilisation would have been effective ; they were both recurrent cases who broke down more than once at the puerperium, and although there is no doubt that they were

insane prior to the birth of the patient, diligent inquiry has failed to discover whether they were certified or not.

The following is the tabulated form of the cases I have examined, and for the sake of comparison I have copied Dr. Stansfield's table of Bexley cases and a portion of the table of the Commissioners' Blue Book.

Cases examined . . . . .	324
No family history . . . . .	88
Family history mental defect denied . . . . .	118
"    "    of mental defect . . . . .	118
"    "    insane heredity direct . . . . .	34
"    "    "    "    collateral . . . . .	31
Neurotic, eccentric and epileptic . . . . .	20
Alcoholic heredity . . . . .	33

*Dr. Stansfield's Cases.*

	No. of cases admitted.	Family history of mental defect ascertained.	History of mental defect denied.	No family history obtained.	History of parents alcoholism only.
Males . . . . .	3561	690	723	2007	161
Females. . . . .	3600	965	1006	1457	102
Total. . . . .	7161	1655	1729	3464	263

*Commissioners' Report, 1910: Giving the Percentage to the Yearly Average Number of Direct Admissions during Two Years.*

	Males.	Females.
Insane heredity . . . . .	20.6	25.2
Epileptic heredity . . . . .	1.4	1.8
Neurotic and eccentric . . . . .	1.5	2.2
Alcoholism . . . . .	5.0	5.5

This gives a family history of mental defect in 28.5 *per cent.* of males and in 34.7 *per cent.* of females, an average of 31.6 *per cent.*

An interesting point in connection with these figures is the fact that of the 118 cases mentioned who had a history of hereditary mental defect, in no less than 29 cases there were two relatives defective and in 9 cases three.

The similar table in the Commissioners' Report for 1910

shows 31·6 *per cent.* of hereditary taint in the new admissions, but this includes those patients of whom no history can be obtained or whose family history is grossly defective ; it is probable that if this figure was doubled it would be nearer the truth. Of the 3,697 cases quoted by Dr. Stansfield where a history was obtained 51·7 *per cent.* showed a history of mental defect or parental alcoholism.

If the overwhelming figures which support the utility of vaccination from a national public health point of view fail to convince a large body of anti-vaccinators that it is justifiable to make vaccination compulsory, what of the figures in support of sterilisation ? It has yet to be shown that this operation would materially reduce the number of the insane.

The truth of it is we have no statistics of insanity that are of any practical use. In the tables published annually by asylums and by the Commissioners the defective histories swamp and entirely vitiate the good ones, and no table gives any information as to the normal relatives or offspring of the psychopathic.

What is required is a collection of detailed family histories giving as much information as possible about both normal and abnormal members of the family. If every asylum would collect even a few of these annually and give them to a statistician they would be really valuable, but the present asylum statistics are almost useless.

All asylum medical officers are struck with the large proportion of degenerates amongst the relatives of insane patients. The motley crowd that visit weekly are a remarkable object lesson of physical and mental stigmata. The blind, the deaf and the deformed rub shoulders with the paralysed, the lame and the luetic ; many of them stammer or lisp, some can scarcely talk coherently, others are dull and annoyingly stupid or mulishly obstinate ; they exhibit numerous functional spasms and tics ; squint and asymmetry of features are common, their bodies are unclean, and their breath often savours of strong drink. They are degenerates, but they are not insane ; they can conform to the ordinary social laws and they can earn a livelihood. The proposals advanced for sterilisation and segregation would not touch this class, which is probably one of the main sources of our asylum population.

If we are unable to show at present that sterilisation would



be any material benefit to the race from a eugenic point of view, are there any circumstances in which we, as alienists, are justified in recommending the operation? Personally I think there are. In the first place I think that any woman who has had a mental breakdown at childbirth should have explained to her the risk she runs of a second attack should she again become pregnant, the risk not only of a few months' treatment in an asylum but of permanent insanity, and should be offered the opportunity of being sterilised.

If resection of the tubes is justifiable in the case of a deformed pelvis where a viable child can be born only by Cæsarean section, and at great risk to the mother's life, surely it is justified here apart altogether from consideration of what the offspring of such mothers are likely to be.

In the second place there are some imbeciles of both sexes who, although definitely certifiable, are quite capable, under favourable conditions, of living a useful life outside; but they cannot be considered as normal citizens. In the female the puerperium and the worry of young children, and in the male the difficulty of meeting the expenses of a family would probably lead to a breakdown of a serious nature, added to which it may be argued that an imbecile is not a suitable person to look after and educate young children in their most impressionable years.

Here, I think, we have two cases where we can recommend or even urge sterilisation for the benefit of the present generation apart from consideration of its effect upon future generations.

The conclusions from this paper are.

Firstly, admitting inheritance to be the most important factor in mental constitution, it has yet to be shown that any practicable scheme of sterilisation would materially diminish the normal increase of insanity.

Secondly, we have no right to hold out a hope of material decrease from the statistics at present at our disposal.

Thirdly, there is urgent need of better record of family histories, which should be kept separate from the present useless conglomeration which compose our statistics.

Fourthly, the suggestion is made that the chief danger from the eugenic point of view is the large class of mental degenerates who are not insane.

Fifthly, the opinion is expressed that sterilisation ought to be recommended in some cases of mental disease quite irrespective of the eugenic standpoint.

DISCUSSION,

At the Quarterly Meeting in London, November 21st, 1911.

The PRESIDENT said the meeting had listened with very great interest to the most valuable paper of Dr. Clarke, which was an effort to place upon somewhat reasonable, scientific and arguable lines the facts with regard to the inheritance of insanity. As the author remarked, there was much extremely loose talk on those subjects, and to have some statistics upon which a sound opinion could be based was a most important matter. There must be many who would like to discuss the paper, and he invited such to speak.

Dr. STANSFIELD said he would respond to the President's invitation to speak, as the paper which he (Dr. Stansfield) read before the South-Eastern Division had been referred to and quoted. He was glad that the paper which he had read should have caused others to be written on the subject, because it was a matter which, in his opinion, should be very carefully considered. There was no doubt in the minds of those who had to deal with large numbers of the insane but that something must be done to stem the flow of the mentally unfit, and they only disagreed as to the method to be adopted. The great importance of heredity as a factor must be recognised, but it had to be acknowledged that our information on the subject was not as full and exact as was to be desired. Some years ago he suggested to the Asylums Committee of London that a special officer should be appointed whose duty it would be to go round to the homes of the patients and see the relatives for the purpose of estimating the amount of uncertified insanity among them. So far this had not been done, and he did not think that this information could be otherwise obtained. He hoped that before long he would be in a position to attack some of Dr. Clarke's statements and statistics, though he was not prepared to do so at that meeting.

Dr. EDEN PAUL thought the subject so important that the Association ought to hear the opinions on it of some of the more experienced asylum officers, and what they thought of Dr. Clarke's statements. He wished to speak from a very general point of view. It was, unfortunately, true what Dr. Clarke said as to our knowledge being insufficient, that there were not yet available a large enough number of full family histories to enable one to say definitely how much insanity was the direct result of inheritance, and how much the sterilisation of patients subject to relapsing insanity before they left the asylums would do to check the apparent increase of insanity. But his view was that they ought not to hesitate to express an opinion merely because there was not yet available the full information which would be so desirable, but which he hoped would be obtained before long. It must be remembered that the public, which was apparently awakening to the importance of the subject, was looking to the members of that specialty to show what should be done in the direction of improving the human stock, or, looking at the matter in another way, to prevent or stop its degradation. The public considered that the members of that Association had some special knowledge for guidance on the matter. Dr. Clarke's opinion seemed to be that the experience of breeders of animals was not of much value as applied to human beings. He found it difficult to agree with that from a general point of view. It was the experience of animal breeders which directed the attention of people to the subject. The point was that there was a desire to raise the *average* of the human stock. It was true that the animal breeder was often breeding for the purpose of producing certain highly specialised types, but not always. It was the desire of people interested in this subject to raise the average of the human stock, but the experience of breeders showed that this could not be done while we allowed our more inferior stocks to breed faster than the others. He thought there was sufficient evidence that this was taking place now, and there seemed enough evidence in regard to mental defect to show that that would soon become a more serious problem than at

present, unless the continued over-breeding of mental defectives was checked. Members would agree with Dr. Clarke that, as far as knowledge was available which could be applied to the question of sterilisation, that process was not required so much for those ordinarily spoken of as insane as for those who came into the world without the power of acquiring average mental capacity, that is to say, imbeciles and feeble-minded people. It was already proved that those people tended, in present conditions, to have larger families than did those whose minds were regarded as being up to the normal standard. And obviously, as the tendency to limit families became more general—and there was evidence that such artificial voluntary limitation was becoming more general year by year—the disparity between the families of those whose mentality was up to the average and the family of the feeble-minded would be very much greater, and the present tendency to breed to excess from mentally defective stocks would be far more marked in the near future if no well-planned measures were adopted than at present. Dr. Clarke's paper was on sterilisation of the insane, but the question arose also in regard to feeble-minded people and higher grade imbeciles, whether sterilisation was necessary in their case, or whether segregation would not better meet the difficulty with which society had to deal (as far as congenital defectives were concerned, as contrasted with the insane), rather than actual sterilisation. In the present state of our knowledge he thought the most important point which Dr. Clarke's paper had brought forward was whether there was now sufficient knowledge to justify members of the profession recommending the offer of sterilisation of the relapsing insane before they were discharged from asylums. He thought it would be a long time before compulsory sterilisation of such persons would be agreed to, but it would be possible, once the matter was recognised and recommended by the profession, to offer voluntary sterilisation as a proper measure to apply to the relapsing insane. In any case, in regard to this Society, it was not a question of advocating any large or sweeping measure, but of expressing the view for or against advocating small beginnings and endeavouring to guide public opinion, which was already ripening on the question, in the right direction.

Dr. WOLSELEY-LEWIS desired to thank Dr. Clarke for his very suggestive paper. He was very glad the author recognised, as he thought all members of the Association did, the primary fact that some 50 *per cent.* of the insane in asylums had a hereditary history of either actual insanity in some members of the family, or a neurotic condition of some kind or other. He agreed with Dr. Clarke that at present the profession had no sufficient argument with which to go to the public and base upon it a suggestion for the sterilisation of insane people as the proper course to pursue. He thought there was no doubt, however, from the single fact that 50 *per cent.* of the insane have such a bad heredity, that a certain number of those cases should be segregated, and permanently so. And not only should that be done in the case of the insane, but also in some of the allied conditions, such as the habitual criminal and the inebriate. It was well known that all those had to be classed together, and that under the existing laws of the country a large number of these people were taken in for a short time, that they then left and bred their kind outside. And those kind were condemned to a disability which was bound to be a source of great expense to the ratepayer in the future, as it would be necessary to increase the size of the establishments in which they had to be kept. He thought that the case for segregation of the relapsing insane and for imbeciles and those forms of insanity which were hereditary had been made out.

Dr. BOYCOTT regarded the compulsory sterilisation of the insane as impracticable. At the present day the liberty of the subject was held so high that it would be practically impossible to get any government to listen to a proposal of this sort. He was not now expressing an opinion as to whether sterilisation for such subjects as the insane was good or bad, but he was referring to the hopelessness of advocating such a measure. He therefore thought the best course was to consider the question of the permanent segregation of these people. Thousands of years ago, before the human race was as advanced as it was now, when people became ill it was reckoned as simply a disability; nobody knew quite what was the matter. That seemed to indicate the present position of their knowledge of insanity. Dr. Clarke referred to the present statistics which had to be furnished, and said they were practically useless. He, Dr. Boycott, agreed that they mostly were useless with regard to the particular form of insanity. When it was stated that

there was a hereditary history of insanity, it should be extended to what particular kind of insanity there was transmitted from father or mother or ancestor. It seemed to him that if they had statistics which lumped all the insane together it was not quite scientific, and it would be very desirable if possible—he admitted it would be difficult—to have statistics setting forth the form of insanity inherited, for that would do much to clear the subject up.

Dr. COLLINS desired to make a suggestion on the general subject, namely, that it was not at all certain that insanity was really increasing at the alarming rate which certain statistics appeared to show. It must be remembered that education was increasing, and there was now a higher standard of life obtaining, and that meant a certain number less of private patients and an increase among pauper patients. It must also be considered that there was much better accommodation now in pauper asylums, and that accordingly many people now availed themselves of that accommodation who otherwise would not have done so. He noticed that the birth-rate continued to fall, and it appeared to fall more among the fit than among the unfit. Therefore, as matters now stood, would it not be better to press for the granting of some endowment of the fit who produced healthy children rather than sterilisation of the unfit?

Dr. HUBERT BOND desired to thank Dr. Clarke for his paper and for the time which he devoted to diving into the statistics of Long-Grove Asylum. He, Dr. Bond, took this opportunity to apologise to many of his colleagues for the numerous letters which, in the course of collecting these statistics, they had received from him, all of which letters, however, were cheerfully answered. It had been his custom ever since the opening of Long-Grove, in every case that had had a previous attack in some other asylum, to forward a letter to the superintendent of that asylum asking for particulars of such attack. And in regard to any relatives who were said to have been insane, he had also forwarded letters of inquiry to the various asylums where such relatives had been. Thus the case-books at Long-Grove showed not only the fact that so many relatives had been insane, but so far as he had been able to obtain it, the form of their mental disorder and the age on first attack. Therefore, thanks to the help he had received from others, there was a multitude of information gradually accumulating there. He was glad Dr. Clarke had made use of that information. All his colleagues at Long-Grove were much interested in the subject now being discussed, and it formed the topic of numerous conversations round the office fire. He believed that the conclusions arrived at by Dr. Clarke represented the joint feeling of the medical staff there with, perhaps, the exception of the fifth, in which Dr. Clarke went further than he (Dr. Bond) was prepared to, and spoke of any woman being advised, after an attack associated with child-birth, to remember the risks. Just before Dr. Collins got up to speak, he (Dr. Bond) had made up his mind to ask those present whether they had seen in the daily papers that day, particularly the *Times*, the remarks about the falling birth-rate. He regarded that as a most serious matter; and he thought that when they set about trying, by surgical or other means, to limit the procreation of any part of the future generation, that question of the falling birth-rate should not be forgotten, particularly as there was not available any real proof that such a procedure was going to appreciably alter the number of insane. He thought it would be more practical for some of those interested in the subject to bring forward concrete examples, always using examples in which the heredity had been fully worked out for, if possible, three generations. Such examples should be brought forward on the one hand by those who advocated such procedures as sterilisation as illustrating their point of view, and other examples should be submitted by those who are opposed to these measures. A meeting such as this was well competent to consider them. If that were done he believed the number of instances in which any such meeting, resolving itself into a Committee, would decide to recommend operation would be excessively few or even *nil*. And if there were only very few, was there, then, any justification in giving assent to principle by sanctioning it in a few isolated examples? It would, in his opinion, be opening the door to all sorts of possibilities, some of them discussed better in Committee than in General Meeting.

Dr. THOMSON considered that discussions concerning sterilisation, lethal chambers, and similar tinkering at that great subject were futile. Certainly sterilisation should not be added as one of the horrors attaching to certification,

because it would defeat its own ends, even if it were desirable. If people were to know that certification of insanity involved, or might involve sterilisation, it would lead to still further evasion of certification than occurred at present. They were now, for the first time, attacking the subject from the eugenic standpoint. Now, for the first time, they were knowing, or were about to know from the inspection of school children, the actual numbers of the defective young. That information had never been to hand before. And early legislation on the subject of the feeble-minded had been promised, laws regulating the control and care of such people. When it was known who among the rising generation were defective and feeble-minded, and when it had been decided to deal with them, there would be some hope for the future, but any tinkering by such methods as sterilisation, or dealing with those who were already condemned, was futile. He looked forward to the time when, with the knowledge of which children were defective, and supported by legislation, there was hope for some improvement in the race and the diminution of insanity from the eugenic point of view.

Dr. SOUTAR considered that Dr. Clarke's interesting and valuable paper and the discussion which followed had been the means of eliciting the important fact that so little is definitely known as to the *role* played by heredity in the production of insanity that the profession was not in a position to advise the public on this matter. The question as to what is the influence of heredity in the production of mental disease was undoubtedly one of the most difficult which confronted the physician. The statistics which had been referred to did not afford much help. These were compiled from the yearly returns made with much labour by all asylums, but they were vitiated by the fact that the heredity tables included both those who came of a thoroughly bad stock and those who came of a stock in which insanity was only an occasional occurrence. Some stocks were so absolutely bad that they produced only neurotic or insane progeny. In others—and amongst private patients one had the opportunity of tracing family history through several generations—only isolated instances of mental disorder could be found amongst a large number of highly competent men and women who did useful and important work. In the tables no differentiation was made between these two classes, yet there was a real difference in the value attached to heredity as a factor in the production of insanity in each case, and this consideration could not be ignored when those statistics were taken as a justification for such a proposal as the sterilisation of the insane. He heartily agreed with the suggestion which was made by Dr. Clarke and Dr. Bond that personal and family histories should be taken more carefully and fully, apart from those recorded in the ordinary asylum statistical tables. There then would be a likelihood of reaching conclusions which would be much nearer the truth with regard to heredity. In the present state of knowledge the profession was not in a position to recommend segregation of those who had been insane—he was not now speaking of the feeble-minded—or sterilisation, or any other extreme measure of the kind. That was the point which the paper and the discussion emphasised. It was true that an hereditary influence had been traced in 50 *per cent.* of insane patients, but what of the other 50 *per cent.* in which no such influence played a part? It would seem as if there were factors about which we know little, of which some tend to correct a faulty ancestry while others are capable of producing mental disorder in those who come of an untainted stock. Ill-health, of which mental disorder may be but one manifestation, was often the outcome of bad environment, and in the slums of our large cities one could see some of the factories for the production of the insane. He thought that improvement in environment and of the general conditions of life offered a more practicable and hopeful method of diminishing the incidence of insanity than did either segregation or sterilisation with all the difficulties attendant on selecting the unfit.

Dr. HAYES NEWINGTON reminded members that from their special point of view they saw so many cases of bad heredity that they were apt to take a gloomy view of the matter. But, taking the broadest point of view, he thought it was well to consider the union of insanity and sanity as not necessarily producing bad results. If Dame Nature had ordained that everybody tainted with insanity would perpetuate the disease, we should have been degenerates thousands of years ago. The world had been going on for many generations, and yet he did not know that we were worse than our predecessors, but probably, in some respects, we were rather better. Was it not possible that Nature ordained that if sanity and in-

sanity were combined it was for the purpose, not of producing insanity in the offspring, and so pulling sanity down to the level of insanity, but rather it was in the direction of raising insanity to the level of sanity. There must be some remedy of that nature at work, and he thought that before trying to interfere with the laws of reproduction, people should have continually in mind that we were in the hands of Nature, that we could help Nature a good deal, but that we were not justified in going as far as sterilisation in the effort to defeat the proceedings of Nature.

Dr. G. M. ROBERTSON said the subject was a very important one, and the whole problem rested largely on the question of heredity. As Dr. Hayes Newington had said, nature stepped in and did more than man was ever likely to do in an artificial way to check the production of the unfit. On studying the forms of insanity which were most hereditary, it was found that those occurred at an early age, and that the most hereditary forms were imbecility, dementia præcox, and adolescent insanities. So the largest number of hereditary insanities occurred in persons at an early stage, and those people did not have offspring. Thus the evil effects of heredity were not so unfortunate or wide-spread as they would otherwise be. There might be other ways of checking those evil tendencies than the extreme measure of sterilisation. Was it not the fact, as Dr. Hayes Newington pointed out, that the tendency was not towards disease, but towards recovery, towards the re-establishment of the normal, not towards perpetuating the abnormal type. If instead of the Association forming itself into a Society for the sterilisation of individuals, it formed itself into one of the nature of a marriage bureau, and selected suitable partners for those who showed defects, and insisted upon them marrying physiologically healthy individuals, there would be a tendency towards the healthy type, not towards the unhealthy. In that aspect he considered that the question was a much more practical one than in the other. He had only once had it suggested to him that a patient should be sterilised; but on more than one occasion he had been asked whether a certain individual should marry. He thought they should insist on the marriage of neuropathic individuals with those of healthy type. Another practical point was that which had been mentioned already, as to the necessity of a more thorough investigation of family histories of the patients who came to asylums. That had been done in America to a much greater extent than in this country. It was called field-work. A field officer was appointed, who visited the homes of these people who were insane, and investigated the histories and environments, and in that way much very valuable information was obtained. He thought that in a place like London, where there was such a scope for work of that character, there should be a department of the London County Council Asylums under the charge of a medical man, who should have a large staff of social workers, who would inquire into the environments and histories, and trace out every person who showed any defect. In that way there would be acquired material of a valuable kind which could be used with great effect towards the solution of that difficult question.

The PRESIDENT, before asking Dr. Clarke to reply, remarked that there were many points in the paper and the discussion which he would have liked to deal with, but in view of the combined discussion which was about to take place, the time for commencing which had already passed, he would forbear.

Dr. CLARKE, in reply, said he agreed with the remarks of Dr. Soutar. Dr. Eden Paul considered that more notice should be taken from the lessons derived from breeding animals. He quite agreed with that. His point was that the animal breeder had nothing to do with the mental side of the question. He agreed that imbeciles, if allowed among the community at all, should be sterilised. The question was whether they should be let out at all, or whether they should be let out and prevented from reproducing. One speaker did not agree that it was practicable to bring in any law permitting of sterilisation, but he disagreed with that. He thought it was practicable if good reason could be shown for it. He believed the State would be ready to legislate for it if a good cause could be shown. With regard to Dr. Robertson's suggestion as to the marriage of neurotics with healthy people, he, Dr. Clarke, never advised people to marry, whether they were neurotic or not. He agreed with Dr. Collins' endowment scheme.