

PART IV.—NOTES AND NEWS.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN
AND IRELAND.

The Quarterly Meeting was held at Bethlem Royal Hospital, May 15, 1890, the President, Dr. Newington, in the chair. Present:—James Adams, S. H. Agar, Robert Baker, Fletcher Beach, G. F. Blandford, David Bower, Crochley Clapham, Wilson Eager, Edward East, C. Theodore Ewart, J. E. M. Finch, Morgan Finucane, Bonville B. Fox, F. C. Gayton, W. Habgood, Henry J. Hind, Charles K. Hitchcock, Theo. Hyslop, Thomas Ireland, Fred. Needham, H. Hayes Newington, David Nicolson, S. R. Philipps, J. Pietersen, F. W. Pilkington, J. H. Paul, J. Peeke Richards, B. W. Richardson, F. L. Rogers, G. H. Savage, Walter Scott, C. T. Sells, Robert V. Skinner, R. Percy Smith, W. Beattie Smith (Victoria), J. Beveridge Spence, S. A. K. Strahan, F. Wyatt Thurnham, C. M. Tuke, D. Hack Tuke, E. B. Whitcombe, Ernest W. White, J. Wigglesworth, A. Murray Will, J. Kennedy Will, T. Outterson Wood, F. Woods.

There were elected as ordinary members:—James Ross, M.D.Aber., F.R.C.P., Physician to the Manchester Royal Infirmary; Robert Reid Alexander, M.D.Aber., Medical Superintendent, Male Department, Hanwell Asylum; Douglas Hamilton Anderson, M.B., C.M. Edin., Assistant Medical Officer, Hull Borough Asylum; Telford Smith, M.D.Dub., Assistant Medical Officer, Royal Albert Asylum, Lancaster; Wm. Johnson Smyth, M.B. and C.M. Edin., M.C.P., Assistant Medical Officer, Kent County Asylum, Maidstone; John Turner, M.B., C.M.Aber., Senior Assistant Medical Officer, Essex County Asylum.

The PRESIDENT: Before proceeding to the next business on the agenda, I wish to say a few words with regard to an important subject that has been brought to our notice with regard to the statistical portion of the reports of medical superintendents of county asylums (See Occasional Notes of the Quarter, p. 387). Then I have to announce that the Annual Meeting is fixed for July 24, at Glasgow, under the presidency of Dr. Yellowlees.

Dr. C. THEODORE EWART then read his paper, "Cycling for the Insane" (See Original Articles.)

The PRESIDENT: I am sure the thanks of the Association are due to Dr. Ewart for his very pleasant and well-written paper. He has enforced in strong words the necessity of exercise for the insane, and has somewhat ingeniously suggested that cycling will be one means of securing that exercise. The subject is safe in his hands, and some of these days no doubt he will be able to give some practical application of his theory. How he will get over the difficulty of supplying cycles to various patients I do not quite see, but now that he has suggested it I have no doubt it will be followed up by someone or other if not by himself. I beg to call on Dr. B. W. Richardson, President of the Society of Cyclists.

Dr. B. W. RICHARDSON: I feel very much honoured, Mr. President, in being invited to come here to listen to the excellent paper of Dr. Ewart's. I believe I am expected to say something, first, about the effects generally of cycling on health; secondly, from my experience as a practical rider about machines; and thirdly, about the value of cycling for the insane as a means of relief or cure. The experience of cycling I have had personally during many years, and the experience I have received by word of mouth from those who have ridden with me is all in favour of cycling when it is carried out in the way which Dr. Ewart has described. There cannot be a doubt as to the excellent effect that cycling has upon health. I have compared it with horse riding. I was at one time quite as fond of horse riding as I have been since of cycling, and I have not given it up. I think on the whole there is no mistake

about it that cycling gives better health and better spirits than horse riding. There is something in the motion of horse riding which is fatiguing, and you cannot keep up distance in riding on horseback so well as you can in cycling. When trying to compare cycling with walking exercise, there is great difficulty of comparison. Walking exercise becomes extremely monotonous and miserable when you once become a cyclist; in fact, I never pass a pedestrian but what I feel heartily sorry for the man as he goes so wearisomely along. I have met with a few pedestrians who have fought it out with me that walking is better than cycling; but when in the evening we have been seated at table talking over the events of the day, and they have described the labours they had gone through compared with what a cyclist would have experienced, they generally come over to the cyclist side. On all these points I would support Dr. Ewart, and would emphasize what he has quoted from my paper that as regards muscular mischief. I have never seen any from cycling when it has been properly carried out. I have known of persons who have outworn their muscles on cycles; sometimes young ones and sometimes old men do weary out the muscles, and it must be said with regard to cycling that certain muscles of the body are wearied out quicker than others. There is no universal distribution of fatigue of the muscular system from cycling, and that leads to a common feeling on the part of cyclists without their knowing the explanation of it. A cyclist will go on for a great many hours feeling no sense of fatigue, then suddenly he will become fatigued and go to bed, thinking he will lie down and sleep the whole night through; but it is only the lower muscles that have been excessively fatigued, and the effect of sleep is to bring back vigour and refreshment to the lower limbs, but not to the heart and to the upper part of the body. The result is, and I have experienced it myself, that the cyclist gets up in the morning feeling ready in the legs to cycle again, but the rest of the body is wearied. Moreover, there has been no long or profound sleep owing to this irregular distribution of muscular fatigue; there have been dreams of motion along the roads, rapid movements, and sometimes twitchings in the upper part of the body and even the lower part of the body, and then it takes some time before all becomes level again. That, I think, is something to be very carefully considered and very carefully avoided. With regard to machines, we have made wonderful improvement of late years. The tricycle that I originally rode weighed 140lbs., I now ride one that weighs a little over 50lbs. The matter of weight of machine is of immense importance with regard to those who are going to undertake exercise on a tricycle. Heavy machines become very serious obstacles to anything like a successful result, and the difference of carrying even 20lbs. in the course of a moderately long day is very considerable. The machine which answers best is a light machine, whether it be bicycle or tricycle. Size also is of great moment. We began by having very large wheels, thinking by that means to get pace. There are certain advantages in a large wheel no doubt, but there are many more disadvantages. There is the disadvantage of getting on and off, and there is the great disadvantage of windage. Taking everything into consideration the small wheel, geared up moderately, is the best. I find that with a wheel of 35 geared up to 46 I can work most comfortably. As to the character of the machines, there are so many good ones now in the field that I really do not know which to recommend as the best. The one that I ride is called the Invincible, but I am having one now made which introduces a new element. The old machines vibrated greatly, and the degree of fatigue which came on from vibration was as severe as the muscular exercise. There are four kinds of vibration on a cycle. First there is the vibration from the saddle, which may be called the spinal vibration, extending along the spinal column, which is worst of all; there is the vibration obtained from the feet by the feet coming down upon the peddles, a minor vibration but well spared; there is vibration from the hands in grasping the guiding bar or handles, and very fatiguing; and there is a lateral vibration which is considerable in some machines, and by-and-bye produces a sensation like sea-sickness. I have known

sickness produced by this lateral vibration. A few years ago all machines were largely faulty in regard to vibration, but now improvements are steadily progressing. Inch rubber tyres, rubber handles, and rubber peddles are advances, with others arising from various kinds of springs under the saddles. Now has come the last improvement, not elegant, in what is called the pneumatic wheel. In the machine I am having constructed, called the Fleetwing, vibration is saved by a new principle. The seat of the tricycle swings, and the rider is cut off from the vibration; he sits, as it were, in a swing. Such are the points I would name about machines, and now I will come for a moment to the all-important question whether we can apply cycling with advantage for the use of the insane. Of course there must be very great care taken as to the class of patients with whom cycling should be tried. It is an extremely exciting exercise, and its value, good or bad, turns upon that even in the healthy man; it is an exercise which, in this respect, is always calling for care. Even in riding one has to be always on the look-out; when there is any abstraction it is very easy to get into difficulty. Therefore the class of patients to be trusted on the tricycle must be comparatively calm and collected; though they may be irregular and wanting in proper mental power they must have a certain degree of calmness. Then I should say, at all events until everything is known about it, they should not be persons inclined to acute attacks of mania. I think cycling probably would be dangerous for them. It should rather be an exercise for the melancholic class, for which I have no doubt it would be an extremely valuable remedy. I take it that in extreme melancholia the melancholics make in their body a volatile substance which is the cause of the oppression, and from the odour of the breath and many of the facts connected with the synthesis of melancholia which I have seen, I think we ought to be getting very near to a knowledge of the poisonous principle which is its work. I have no doubt it belongs to the sulphur class, like mercaptan, and its elimination by exercise ought to be one of the most determinate and proven facts. Apart from theory for people of a melancholic tendency, this mode of exercise will be exceedingly good. We see in practice many hypochondriacal and melancholic people, and I have found the cycling exceedingly good for them. I have lately seen a member of our own profession gradually dropping into suicidal melancholy make a recovery and return to his professional work within a short time, and with good results that were never expected, simply from taking a tour on a cycle. Dr. Ewart referred to what is called the Victoria machine; that is a multiple machine where a number of cycles are put together and go in a row with one man directing. I am sorry to say I could not quite agree with him in the use of that machine by the insane. It has not turned out particularly well even with sane persons, and it is not particularly safe; also it is not pleasant to the mind. People do not like to be guided by another person, they like to guide themselves, and pleasant riding means freedom from control. It is true that a gentleman and lady will go on a tandem, and the lady will let the gentleman guide; but two gentlemen going together generally get irritable; I have noticed that. One wants to go one way and one another, one wants to go down hill at one pace and one at another pace; one thinks there is danger when the other does not see it, and a great deal of discomfort arises even on a tandem in that way, but on a Victoria the dangers are infinitely increased in that respect. I once near Hastings witnessed a quarrel between six men who were going on one of these machines. I think you would not get insane people to like that mode of riding; they would like to take their own course, and the persons who are the most nervous generally like to take their own course. Besides, it is not quite such easy work, for unless all are pulling together and going as one person, the work becomes extremely tedious and very unfair. I should not advise that the insane should be put to gang work of this kind. I think the superintendent of an asylum should begin by getting first what he would consider a single model tricycle for asylum work. Afterwards he may introduce bicycles, but the tricycle should be the machine commenced with—a

tricycle not more than 35 inches in height, and low geared. At first a few good riders should be got to go with the patients and teach them peddling, steering, going up and down hill, and so forth. In a large asylum, in five or six weeks of thorough good exercise and physical education, there would be a good corps of riders. Then afterwards I think when it was known who were safe riders, it would be a grand experiment to take them out for tours; it would make them accustomed to the country round about. Interest would be excited by the objects which might lie in the way. A mental exercise befittingly secondary to the physical would be sure to follow.

The PRESIDENT: We have a great cyclist present in the person of Mr. Williams; perhaps he will let the Association have his views upon the subject.

Mr. WILLIAMS: I am afraid I have hardly anything to say as to the influence of the cycle upon the insane. As a matter of exercise, I have found it an exceedingly good and very safe one, and when taken in moderation it is better than a great many other exercises, and very much more easily managed; for instance, it is very much less monotonous than walking, and as to riding and rowing, it is more easily learnt. I do not think I have anything further to add.

Dr. SAVAGE: There is one point of view from which I should like to say a few words. I have recommended the cycle on more than one occasion, and certainly with satisfactory results. The class of cases in which we have found it most beneficial has been that of aged men who have retired from business, that restless type of individual who feels his occupation gone and wants to do something. A certain number of these men get very depressed and very melancholic. I remember especially in one case where there was a gouty history, that riding from 10 to 15 miles a day, changing the surroundings and yet without fatigue seemed to be extremely useful to the patient. I suppose Dr. Baker would be inclined to say "Oh, yes, it is rather a laborious way of taking a Turkish bath." I should feel inclined to agree that the great appeal from the brain is to the skin, and if you can get an improved circulation, whether by change of air or by exercise, we shall do good to a very large number of melancholic patients. One always thinks of what Dr. Wilks, of Guy's, in years gone by used to say: "I believe if you could make all your melancholic patients march three or four miles an hour with heads up in the open air, they would soon cease to be melancholic." One feels inclined to think so too, only you cannot make them do it. One advantage of the Victoria machine would be that you would be able to make certain persons move rapidly through the air when they would not voluntarily do it themselves. I only rose to say that I have already tried it. There was rather a startling article in the *St. James's Gazette*, I think on Monday last, written by someone who evidently did not believe in exercise, saying that we were constantly sacrificing to that idol of exercise, but that if you looked to London you found there more healthy people than you would find anywhere else, if you looked to London you found more lazy people than you found anywhere else, and if you looked among the laziest of London people you found the very healthiest.

Mr. RICHARDS: I do not know whether Dr. Ewart has had any practical experience in the way of tricycling amongst the insane; I think his paper must be only theoretical, otherwise doubtless he would have produced some cases in which he had seen beneficial results. I think the first thing one would have to do in our large county asylums, or in fact in any asylum, would be to educate the attendants,* and you must have a staff of attendants who are sufficiently skilled to be able to outrun any of the patients, otherwise you might get patients who were better performers on the tricycle, and then when they went out with an attendant you might find the patient heading straight for a pond in view and the attendant would not be able to catch him. I quite agree as to the un-

* Some of the attendants at the Hanwell Asylum are experienced cyclists, and would be quite able to go out with patients.

desirability of using the Victoria tricycles where they have six or seven in a row. If you have six or seven patients all taking a great interest in what they are individually doing, the man in the middle might tumble off in a faint or a fit and yet the others would take no notice, and he would simply be found hid up in the machinery before anybody could stop. There are some little difficulties attending tricycle riding—I know it in my own practical experience. Dr. Richardson has said that he never knew a case of rupture of muscles or anything of that sort to occur. Neither have I, but I remember some two or three years ago when at the seaside with my family, my boys induced me to try a tricycle. I did so, and got on pretty well for a day or two, taking some rather long rides. I came back to work for about a week, and then I left for the Continent. When I got to Cologne I found that I could not pass my water, and I could not make out what on earth was the cause. I went into a chemist's shop to try and get something or other, but it was no use, and a pretty quandary I felt myself in. On reflection I began to think whether it was the tricycle that had done it; that being so maladroit in the use of the instrument, I had, perhaps, shuffled about on the saddle a good deal, and I have no hesitation in saying that that really was the cause, and had produced spasmodic stricture, because in another year, when on the tricycle again, not having tried it in the interval, the same thing happened again. That is to be borne in mind when you first of all get patients to use the tricycle. I presume that all this tricycle riding would have to take place in the country, because the grounds of the asylum would not be large enough to afford room for the practice. If your own grounds were large enough it would be certainly very beneficial, but I doubt very much that the beneficial effect is due, as Dr. Savage has said, to perspiration, for if a man becomes a good cyclist, such as Dr. Richardson, I believe that at the end of 50 miles he would find that he would not have turned a hair, so that there would be no perceptible perspiration on his body.

Dr. FLETCHER BEACH: Dr. Richardson omitted to mention what influence the use of the cycle would have on the superintendent of an asylum. The mind acts on the body and the body on the mind. The superintendent of an asylum cannot do his work well unless he is physically in good bodily health. As an old cyclist, I know there is no exercise that enables me to do my work better. For instance, after doing literary work of the day—perhaps the secretarial duties of this Association—I run away into the country 20 or 30 miles, come back with a pleasant feeling of fatigue, go to bed, sleep, and next morning get up to work. Therefore I think it would be a good practice for all superintendents of asylums, especially county asylums, to ride bicycles. And not only that, but asylums now have become so very large, and the distances that have to be traversed to see your patients, especially when the asylum is constructed on the villa system, at distances from each other are so considerable that you would save a considerable amount of time, if instead of walking from one building to another you could ride a bicycle or a tricycle; you would not only save time, but would come back with a pleasant feeling of fatigue instead of being tired out. I think Dr. Richardson is quite right in saying everybody should begin with the tricycle at first, unless he is a young man. If he is a young man I should tell him certainly not to ride a tricycle, but a safety bicycle. You cannot possibly have any accident, because if you think the bicycle is going to upset, all you have to do is to lean on one side and quietly stop it. There is no jumping off as in the high bicycle of former days. As to the point that the wheel should not be too high, the safety bicycles at the present time are made with wheels 30 inches in diameter, therefore you do not have a long distance to get on or off. I have no doubt that moderate exercise is what should be aimed at. There is another question, that of vibration, which Dr. Richardson spoke about specially. The spinal vibration that you get from a rigid machine, especially after 20, 30, or 40 miles, if you go on day after day begins to tell. The only machine I know at the present time which avoids this is the Whippert's Safety. Underneath the saddle there is a spring, and therefore instead of having a rigid shock

you simply go up and down as in an easy chair. Underneath the handles there is another arrangement for taking up the vibration, so that you come back from your ride simply tired from fatigue and not from vibration.

Dr. PERCY SMITH: I have known one case in which a person broke down from exhaustion from riding on a bicycle, and one of my colleagues told me he has known a similar case.

Dr. HACK TUKE: That happened to a patient of mine some time ago. He had, however, been three days on the road in a very hot sun, so that perhaps the attack of insanity can hardly be laid to the door of the bicycle so much as to the heat. I think we are much indebted to Dr. Ewart for having brought this subject forward in so interesting a paper. I think the paragraph in his communication which will be most interesting to the patients themselves, will be that which refers to "aerial bicycles." I think if Dr. Percy Smith allowed his patients to go out from Bethlem Hospital on one of these, the time of their return would be rather doubtful.

Dr. BAKER (York): I thought Dr. Ewart would have alluded to the case of children who are not quite strong in their muscular or mental development. I have seen cases where children who would have been hardly expected to be able to control a tricycle or bicycle have shown very considerable power in doing so. Of course it is very much safer to trust them on a tricycle, but in one or two cases they have managed the bicycle remarkably well, and have shown considerable muscular power.

Dr. EWART, in reply, said that with regard to what had been said as to the Victoria tandem, he did not see if they had an attendant in front and one behind they could possibly have any patients fall off without its being known that they had done so.

Dr. STRAHAN then read a paper on "The Propagation of Insanity and allied Neuroses." (See Original Articles.)

The PRESIDENT: Dr. Strahan has, without doubt, read us a valuable paper, and one that covers an enormous ground, and ground which of course we could not follow him over at one meeting. I am sure that he has the sympathy of every one of his hearers in his views as to our duty to obviate the propagation of insanity as much as possible; but I am not quite so sure that his gloomy forecasts are borne out by facts. The whole thing turns on an old question. Of course, if you take two obviously insane persons and marry them, the chances are ten to one that something very unhealthy is procreated; but taking the average marriage that goes on now of a healthy person with an unhealthy person, a slightly-tainted person with a slightly-tainted person, and so on in various degrees, it is very doubtful whether much harm is really done. If I have correctly understood the paper, the whole question turns on 'the absolute amount of insanity in the kingdom—whether it is increasing or whether it is decreasing; and, out of the many points in the paper, this one only is that on which I shall make remark. As Mr. Noel Humphrey properly pointed out at a meeting of the Statistical Society a little time ago, we must be very careful, in estimating the amount of insanity in the kingdom, to distinguish between mere accumulation and what is called occurring insanity. Of course, as Dr. Strahan has shown by figures, the large increase in the total number of insane people on the books of the Commissioners in Lunacy is undoubtedly due to the fact that the addition is not compensated for by the removals by death and discharge. There is no doubt about that; but that is not the difficulty besetting the question of the increase of insanity. The difficulty is this—that there is probably a very large proportion of real insanity outside asylums, and that proportion does not come under the Commissioners' notice at all, nor under our notice as Asylum Superintendents. Therefore there is a large amount of insanity that does not come within figures, and cannot be computed by figures, and at first sight it seems hopeless to attempt to gauge the amount of insanity, seeing that we do not know how much undeclared insanity there is in the kingdom. I have from time to time taken the statistics for many years past as

they occur in the Blue Books and in the Asylum Reports that reach me. I have always been struck by one thing—that is the strange consistency of the figures from time to time of insanity in various forms; so much so that I have been almost tempted to say that insanity has laid down laws for itself, which it follows with marvellous consistency. I have taken the proportions of mania to the whole number of admissions. I have found the proportion of mania to the total insanity admitted into asylums in the course of one year, the proportion of melancholia, the proportion of mania and melancholia as between male and female, and the proportion of mania with melancholia as between private and pauper patients, hardly vary from year to year. The same is the case with general paralysis of the insane. Almost the same number of people become general paralytics and epileptics year by year. Then, again, with regard to the occupations, we know the Commissioners have got together an increasingly valuable series of figures obtained from the various superintendents as to the occupation and various other items of information connected with patients who are admitted. I am only talking of the admissions of each year. The occupations vary very little. The tailors furnish so many inmates into the asylum—clergymen and people where there is a definite profession or calling—the numbers from that definite calling come in year by year very much in the same proportion. And then, too, in the same way with the causes. We know what various views we all have on the question of how far intemperance produces insanity. The assigned production of insanity by intemperance varies little; senility varies little; even insanity from accident varies but to a small decimal in the 100. Sunstroke, I think, is responsible for 1·5 out of every 100 admissions in the course of the year, and not only that, but even the item “unknown”—where no cause can be assigned—is much the same year by year. And then, too, with regard to the suicidal propensity, the manifestation of suicidal propensity in admitted cases is the same year by year, and not only so, but in unvarying proportions as between the sexes, male and female. All these considerations have led me to believe that insanity has laid down laws for itself, which it closely follows, whatever men may do. It may be that for a few years some large popular movement, such as drink or famine, may affect the progress of insanity; but it appears to me that, short of anything of that kind, we go on much the same year after year, that is, as far as declared insanity is concerned; and if that is the case, it is not too much to ask whether undeclared insanity will not always bear the same proportion to declared insanity year by year; and I really think that is a fair and possible way of looking at the matter. I think Dr. Strahan said there had been a slight increase within the last few years. If I remember right, the average for the last 15 years of “occurring” insanity per 10,000 inhabitants was 5·15, that is to say, 5·15 out of every 10,000 inhabitants of this kingdom went wrong in their minds.* The proportional average is right for this year. But only as late as two, three, and four years ago the numbers of admitted were below the average for the fifteen years. So that we may consider that there is no very great increase in the amount of declared insanity; and I should suggest that it is quite fair and possible to infer that there is no increase in the undeclared insanity, and that fears as to the positive increase of occurring insanity each year in this kingdom may well be allayed.

Dr. B. W. RICHARDSON: I should like to ask a question. I think, sir, your argument would really go to show the strength of Dr Strahan's proposition. I did not understand Dr. Strahan to say there was a great increase of insanity, but he seemed to my mind rather to be thinking of the way by which the present insanity, declared or undeclared, could be reduced. That seemed to me to be the point of his paper, without holding out any fears about the increase of insanity. It seems to me that your observation, sir, would exactly sustain what Dr. Strahan has said, namely, that there is an amount of fixed insanity which

* It must be remembered that these numbers do not represent first attacks—the only correct test of occurring insanity.

depends upon the laws which insanity, as you urge, has made for itself ; thus breeding in and in would just produce the effects you have described, although it might not cause increase. Would not, therefore, what Dr. Strahan proposes be equally good if the excellent suggestions you have made are fully admitted ?

The PRESIDENT : I rather took it that Dr. Strahan attributed a certain amount of increase in our present insanity to the habits and customs of the people, now that we are breeding insanity on account of our increased civilization rather fast.

Dr. B. W. RICHARDSON : I do not think he meant anything more than increased insanity in relation to increase of population. But there is another point Dr. Strahan referred to that should be answered by this Society. It opens a very important question, perhaps one that will seem strange. I mean whether there is anything like continuous transmission of insanity through the *female* line. I can understand that there shall be an insane woman who will have an insane child, but if you trace that insanity back through the male line, shall we not find some connection or descent on the male side ? Or, I should say, is not the insanity transmitted through the woman of very slight duration, not lasting beyond a generation ? I take it that really and truly all taints come from the primitive man—all changes that are hereditary—and that it is impossible to suppose them originating from the woman. I think this Society could very well work out that great question, if statistics could be got showing how far the disease, as we call it, of insanity extends primitively from the woman as compared with the extension primitively from the man. The returns might bring out a series of facts also with regard to the propagation of general appearances and the continuation of proclivities, marking distinctly, as I ventured to submit, that all that is racial is derived originally from the male and not from the female subject.

Mr RICHARDS : I am inclined to agree somewhat with Dr. Richardson. I do not think as a rule, if you trace a case out to hereditary descent, we should find it so frequently occurs from the female strain. If you take the trouble to inquire into an hereditary case of insanity, you will find nine times out of ten that it does come through the male line. I do not think it necessarily follows because a woman may have puerperal mania that she has always a puerperal form of insanity, and she is going afterwards to beget insane children. I know time after time I have inquired on that point as accurately as possible, and I have never been able to trace it; so that I quite agree with what Dr. Richardson says—that the hereditary taint does come through the male line. I agree with the purport of Dr. Strahan's paper. What he was aiming at was this—whether something could not be done, not so much to prevent the increase of insanity, but to prevent, by means of legislation, insanity being created at all. I think it is a very long time before you will ever get any Legislature to do that, because you know you may have stock from a very tainted source, both male and female, perhaps, for a generation or two back ; but it does not follow that every one of the offspring from that source will be insane. There may be ten children and only one be insane, and is the Legislature to step in then because there is one insane out of such a progeny as that ? There is another thing to be taken into consideration : How many generations is the Legislature to go back ? You know very well that, as in all other hereditary diseases, it will skip a generation or two. Is a man or woman to be prevented from marrying because four generations ago there was a member in their family who was insane ? I do not think you will ever get any Parliament to sanction legislative interference.

Dr. BONVILLE FOX : My experience is, comparatively speaking, a limited one with regard to family histories. In another way it is a fortunate one : The number of patients that come under my notice in the course of the year may be small, but I have fortunately been happy in their relatives in one way—that as far as I can ascertain they have told the truth, or, at all events, they have not

declined to answer questions. I have only on one occasion been met with a blank refusal. Fifty per cent. of those persons who have come under my care in the last ten years have had an insane or neurotic family predisposition. I do not like to say "inheritance," because I think that is perhaps rather a different question; and the conclusion which one has to draw from their history is whether the relationship is sufficiently strong to give any taint. Dr. Strahan has pictured in eloquent terms the evils that arise from the breeding in of disease. He has suggested a remedy; but I am afraid in this room we occasionally soar into the regions of Utopia, and his remedy must, at all events for the present, be classed as a Utopian one. It is, I think, impossible to conceive that the Legislature will for many years to come step in and say to this man: "Thou shalt not marry because you have been insane, or a drunkard, or your father has been insane." I think it is hopeless to look for a remedy in that way. We all know the old tale of a paternal Government making a childish people; and I do not think in the present day English people would submit to anything of that sort. The danger is sure—is present—as far as we can be sure of anything. I have been astonished by two pieces of information I have received. It has been said that melancholics manufacture in themselves the poison from which their disease arises. That is perfectly true in one sense; but if Dr. Richardson, of whom I would speak with the deepest respect, suggests that we can specialize that poison, and that it is entirely due to some common poison formed in the body, I would respectfully object to his statement. The other is that the taint is not on the female side. If it is not, I am strangely mistaken, and the history that has been told me, and the facts which have presented themselves to me are most delusive. But I think there is one thing that we, as medical men, may do to check the increase of insanity. It is, no doubt, perfectly true that insanity has maintained pretty much the same proportion; but there are other diseases which did so until comparatively lately. Who would have thought a few years ago that phthisis would be as eminently curable as it undoubtedly is now? And that being so, are we to say that we cannot diminish, if not the extent of insanity, at all events the effects that are so common. I think we can do it, and in one chief way. We are very often appealed to, and I hope as education increases we shall be more often in the case of intended marriage; and I think this gives us the greatest chance of checking the increase of insanity; and it is a question which should be considered not only by those specially concerned in asylum work, but also by family physicians much more than by the Legislature. We have knowledge—they have none. It is our duty to try and spread that knowledge, and by every means in our power to prevent such risks as have been run being run in future.

Dr. FLETCHER BEACH: There is a book probably well known to most members, namely, Huth on "Marriage of near of Kin." The author examined some thousands of examples, and having approached the subject with a perfectly open mind, he came to the conclusion, after going through all these cases, that when both sides of the family are healthy, there is no reason why first cousins should not marry, but that when either side, and much more both sides, are involved, such marriages should not result, and that opinion is held now most strongly by all men who are the heads of institutions. Statistics have brought out, as far as I think possible, that of the cases I have to treat no less than 75 per cent. arise from hereditary predisposition. No doubt it would differ according to the class of case. No doubt in the higher classes of society you do not find the percentage so great, but when you come to the lower classes you find drunkenness, insanity, and imbecility ranging strongly through these families. Of course, in this case, ignorance plays a very common part: the parents of these people are not sufficiently educated to know that dire results will follow. Therefore I am quite of opinion that education will eventually play an important part in preventing such marriages.

Dr. HARGOOD: Dr. Richardson has, I think, put forward a statement that insanity is not transmitted through the female side.

Dr. RICHARDSON: I did not say that; I said that was a great subject for inquiry whether it was. I did not lay it down.

Dr. HARGOOD: You doubted it.

Dr. RICHARDSON: Quite so; and as I said, I thought this Association was just the one to clear that up. My impression is it comes from the man, but I am not dogmatic on that for a moment.

Dr. HARGOOD: It seems to me very extraordinary if a man can inherit certain qualities from his mother, which undoubtedly is the case, for many men seem to have owed their positions in life to having clever mothers, that she should not be able to transmit bad qualities also.

Dr. RICHARDSON: If she does transmit them, I rather think it is the effect of maternal influence during the first years of life.

Dr. HARGOOD: There is one thing which was running through my mind, though it hardly bears upon insanity; it came under my notice the other day, and shows the strong maternal influence in reproducing species. It was the case of a terrier bitch. The father was distinctly different in form and colour, but out of six pups, two took exactly after the father, and four exactly after the mother. There the mother seems to have had more power to reproduce her special form than the father had.

Dr. WHITCOMBE: The subject is one in which I am much interested, but I rise to mention some cases which have occurred in my own experience. One of the first cases I remember was that of a father and son in the asylum, the son presenting exactly all the characters of the insanity which the father had. I have also had the curious experience of delivering an insane woman of a child. The mother had puerperal mania, and curiously enough, some twenty years afterwards I received that child into the asylum suffering from puerperal mania. I have at the present time two brothers and a sister in the asylum, the father and mother being just sufficiently sane to keep out. I have also had the curious experience of two patients leaving the asylum, getting married afterwards, and I have had two of the children as patients since. With this experience, and putting down the cases of heredity at more than 50 per cent., it becomes important that we should not look upon this subject as Utopian, but should see how far we can suggest a remedy. The whole subject is fraught with very great difficulties and danger, but at the same time it is one which should be grappled with in a thorough manner. I may say I believe that in the Code Napoléon there was a clause by which epilepsy nullifies marriage.

Dr. BONVILLE FOX: I may mention one case. A lady was confined, she went insane, the child was perfectly right. The lady recovered, went out again, had another child, became insane, the child an idiot, the lady recovered. She returned home, had a third child, went insane, the child an idiot. The lady went into the asylum, again recovered, went home again; had a fourth child, the child an idiot. Four confinements, three idiots. The lady cut her throat.

Dr. HACK TUKE: I think it is very clear there is no statistical proof of an increase in occurring insanity. It is quite possible, however, there may be an increase in some forms of nervous disease, and probably in regard to suicide; but I should like to say with regard to the latter, that I believe we may over-estimate the amount of insanity in cases of suicide. I do believe a great many of the suicides which we read of in the newspapers, are not the result of insanity at all, but, so to speak, the almost inevitable outcome of poverty, desertion, and vice. I should like to say with regard to the question of legislation, I think the way in which Dr. Bonville Fox has put the subject is by far the most practical one, namely, to do all that we can by advice in individual cases, though even then we must not lay down an inflexible rule. I doubt very much whether the time has come, or ever will come, when legislation can interfere with the marriages of those who have been insane, or who are neurotic persons.

There was an old Scotch law which enacted the castration of epileptics, but we all know that it is not in force now. It may have been a very wise law, but I think any laws made now in that direction would very soon also fall into desuetude. Then supposing the Legislature did interfere with the legitimate marriages of these persons, you would still have a number of illegitimate births among them.

Dr. STRAHAN: They must not be at large.

Dr. H. TUKE: But, pray, how are you to shut up all persons who are pre-disposed to insanity?

Mr. C. TUKE: This is no doubt a very delicate question, especially as regards the upper classes, and I, for my part, quite agree with those who think that it is impossible that the Legislature should take action in the way of forbidding marriages, but that medical men have a great power in their hands to advise persons who very frequently come before them. No doubt very much might be done in this way, if persons would only take the medical men's advice, which they do not always do. But there is one point that perhaps the Legislature should notice more than it has done, and that is cases where previous insanity has been concealed. This point ought to come under notice, and one cannot help thinking it is a most cruel and criminal thing for one family to conceal by all the means in their power the insanity, which is often followed by such cruel results. In this question we can educate, I think, people more fully, and when this danger is thoroughly understood perhaps we shall see less of it.

Dr. STRAHAN: In the case I referred to, public opinion is altogether in favour of legislation, that is in cases where people have been seduced, so to speak, into marriage with tainted persons. Certainly the lawyers, including our best judge, Mr. Justice Stephen, and many of the best medical authorities agree that it should be a ground for divorce, as it is undoubtedly a fraud. The only other question I would refer to is the one raised by Dr. Richardson, as regards transmissibility through the female. Unfortunately, the authorities as regards insanity are strongly in favour of the mother's insanity being much more dangerous to the children. The best authorities support this view. Statistics are given in "Bucknill and Tuke" which show that the insanity of the mother is transmitted at the rate of 60 per cent., while for that of the father it is not more than 40 per cent. It also appears that the transmission of maternal insanity is twice as much to be feared in regard to the girls as in regard to the boys. Then as regards the class of those who will marry for money and that sort of thing, whether the woman or man be insane or not, we could not stop that. But if we were to stop the propagation of all confirmed epileptics and imbeciles that we are turning out—suppose a man has been three times insane, that man should be kept in a kind of industrial home or penitentiary; if we did that for one or two generations we should do a great deal to prevent the spread of this disease. If, on the other hand, we were to adopt the old Scotch custom of castration and spaying, Mr. Lawson Tait would willingly spay the females for a limited sum, and we could work the males ourselves.

The PRESIDENT called the attention of members to a variety of pathological specimens, exhibited by Dr. Percy Smith and Dr. Hyslop, including microscopic sections of the cortex in a case of chronic alcoholism, showing softening, degenerative changes and spider-cells; and section from the motor area in a case of acute melancholia, showing degenerative changes; sections from the cornu ammonis in a case of chronic dementia, and sections of the cortex cerebri in cases of mental stupor and of acute general paralysis; also sections of the upper lumbar regions, showing degenerated cells from a case of senile general paralysis, and of teased-out cells of the anterior cornua from the lumbar region of the spinal cord showing degenerated motor cells.

These beautiful specimens show how much good pathological work is being done at Bethlem Hospital.*

* See Dr. Percy Smith's Notes, "Clinical Notes and Cases," p. 371.