

tional cases—these insane people and others—able to take care of their friends? If they are, they ought to be required to do it. If they are not, the state ought to step in and do that work. If the question could be reduced simply to the fact that the friends of these afflicted people are not able to do this thing, and the people actually need the service, I believe it is the duty of the state, and I believe the state will step in and do its duty. Beyond that I believe the tendency would be to pauperize and demoralize the people, because as we grow older as a nation we are very likely to lean more heavily upon the government. I believe people ought to be taught to lean on themselves.

The Chairman: I am going to ask Dr. Du Bois, who is here representing the medical staff of the Home School for Girls, and who is a man of wide experience and deep study 'along these lines, to let us hear from him on any phase of this subject that especially appeals to him.

J. A. Du Bois, M. D., Sauk Centre: Gentlemen—Whenever I hear remarks such as I have heard this morning, or a paper along the line Dr. Phelps has traveled, my first feeling is one of sneaking off somewhere for four or five weeks or perhaps four or five months, maybe two or three years, and thinking the matter over and giving it serious thought, but since my advent in this world I have never followed this method, so I fly to the opposite extreme and upon the slightest invitation break into the game and go off half shot on a great question.

When I hear a paper like Dr. Phelps' I feel a great deal of gratitude to the author, which is followed quickly by a feeling of antipathy. He brings us up to what has been the problem of all time and will be the problem for a great while. He introduces us to this magnificent ocean, and he says, "Come in, boys, the water is warm." And before we get fairly started the gentleman himself is on the shore shivering like the rest of us.

It involves the deepest of all questions, and it is a matter which torments the race in one way or another, in its different features, to a very serious degree. Of course, it goes into the question of that thing or that personality we create, that indefinable something we persist in surrounding with all the elements of being, which we call "the state;" probably an artificial method in its origin whereby human beings can live with one another. But it assumes quickly an entity, and then receives in a greater or less degree an adoration or reverence which is likely to lead us into all kinds of difficulty.

Senility, for instance, upon normal lines deserves, and it should receive, the same kind of attention that is bestowed upon the other helpless end of existence, and that is the beginning, the babe, the most helpless animal on earth. The trouble surrounding the beginning of existence is the greatest blessing in disguise which comes to the earth. In no way should it be interfered with. I am one of those that believe, right straight in the face of this thing that we call society, if you please, that when a mother brings into existence a human being—under any circumstances, I do not care how—the fact that she has done a credit to herself and has done something for this world should be recognized, and that human life, those two human lives, should receive more benevolent attention from the world than they

do receive. There is something about our reverence for social forms or old formulas which carries us in the wrong direction to a very serious degree.

Now, I understand, of course, the method of the specialist. Here is the senile person with his mental faculties, as well as his physical, incapacitated. I understand, also, 'that a certain per cent may be of absolute danger, probably are; but doesn't that apply also to the normal individual? A certain percentage of what we call normal individuals, individuals who have their faculties, are evidently a danger to society. We have to meet that and recognize it now and then. Can we possibly, in the normal life, devise any method of legislation or statecraft whereby that percentage will not exist? I do not, myself, look upon that as a sufficient reason why the senile as a class should be cared for by the state.

Of course, a certain number of people believe that almost any evil, by a little foresight, can be prevented. They believe in a constant state of preparedness. What they mean by preparedness I do not know. Every individual—must to a degree prepare toward the time when that element of weakness, which is likely to come to all of us, shall appear; but I do not believe that the element of danger in that period of life is so great that the state should be called upon to provide and care for it wholly.

I find myself getting right around to the position that Dr. Phelps finally reached in his magnificent paper, and that is as to the question, What are you going to do about it? I simply throw up both hands and say, "Well, let us see what the brain power of the future can do toward solving these questions."

Never sacrifice what we call individualism to that other side of the proposition which we call collectiveness or solidarity. When one reviews the history of the world, he sees that after all it is the individual who has accomplished the greatest results in this world; and he must never for one minute be discountenanced in the game.

The Chairman: I think we could very easily devote the balance of the forenoon to this discussion, but we have other subjects on the program.

I was sure Dr. Du Bois would give us an original point of view. Furthermore, he touched one phase of the question that does not enter here directly; that is, the real solution for the future.

Miss Merrill will present Dr. Kuhlmann's paper.

THE EPILEPTICS. WHAT SHOULD BE THE ATTITUDE OF THE STATE AND COMMUNITY TOWARD THEM?

By F. Kuhlmann, Ph. D., School for Feeble-Minded.

Epilepsy has been recognized as a specific disease for many centuries. Its main symptom¹, the epileptic seizure, was described in the earliest medical literature in such detail and with such accuracy that later writers have been able to add but little or nothing. The writings on the different phases of this disease fill many volumes in modern medicine. It cannot come within the scope of a brief paper to attempt to epitomize the main facts

known about epilepsy. This also will not be necessary. Nothing essentially new that is of great importance has been discovered¹ about epilepsy in recent years. It will be assumed that the main features of epilepsy are common knowledge. There are a number of traits in the different phases of epilepsy that have a direct bearing on the question of what the state should do in regard to epileptics. This paper will limit itself to a summary and discussion of these traits.

Definition. The idea long held of epilepsy as a disease entity is now mostly given up. Although the immediately observable symptoms always include the seizure in some form or other, they vary widely in character and severity. At the same time the etiology seems to be equally complex and varied. The disease is now more commonly described as a syndrome, a symptom, complex, in which the seizure is a universal factor only because the cortical brain cells respond in this same way to a number of quite different stimuli, or causes. Thus from the standpoint of these immediate agencies that produce the epileptic seizures we speak not of epilepsy but of epilepsies. Some authors prefer to make a distinction between symptomatic epilepsies, in which a definite cause that is extrinsic to the cortical brain cells is discoverable, which thus indirectly produces the seizures, and idiopathic epilepsy, in which no such factor extrinsic to the brain cells can be found. But since symptomatic epilepsy does not mean necessarily that the cortical cells are otherwise normal, and since idiopathic epilepsy means only that we do not know of such extrinsic factors, and not that such do not exist, the distinction is of no great importance either from the standpoint of a descriptive definition or of the etiology of the seizures. The following definition from Munson ("The Treatment of the Epilepsies," in "Modern Treatment of Nervous and Mental Diseases," edited by White and Jelliffe, Phila., 1913, Vol. II, p. 229) brings out several facts that have a direct bearing on our topic. "The epilepsies are a group of similar syndromes arising by action of the cells of the central nervous system through stimulation by various agents which may be either intrinsic to the nerve cells or extrinsic or from a summation of causes in both groups, characterized by seizures in which consciousness is altered or lost, with or without motor phenomena; characterized by mental changes and by certain traits of mind and character which exist independent of the seizure." The nature of the seizures, the secondary traits, and the causes of epilepsy, all present features that help to make epilepsy a problem for the state to deal with. We may consider the causes first.

Etiology. State care and treatment of defectives has in the past been almost limited to incurables and chronic defects that required prolonged and systematic efforts not likely to be applied to patients outside state institutions. We need not consider the wisdom of this line of demarcation between state and private cases of defectives. The wisdom of extending state care and treatment to almost all classes of incurables is now almost universally taken for granted. The curability of epilepsy depends on the nature of its causes. We all know the essential facts about this question. Medicine has searched for centuries for a cause or group of causes of epilepsy with such meager result as to discourage further efforts. We know that the disease is largely hereditary. Statistics tell us that from 25 to 75

per cent of epileptics have a defective heredity. The heredity, however, is not as direct as in the case of feeble-mindedness. The number of epileptics who have an epileptic parent, or other epileptic relative, is comparatively small. The ground fact seems to be the presence of an hereditary neurotic condition that appears in a variety of forms, including epilepsy as one of them. Thus, while two hereditary feeble-minded parents seem always to produce only feeble-minded children, two epileptic parents will produce children all of whom are abnormal but not necessarily epileptic. When both parents are neurotic but not epileptic, there result more than five times as many epileptic as feeble-minded children, which "seems to indicate that neurotic and otherwise tainted conditions are more closely related to epilepsy than to feeble-mindedness." (Weeks, D. R., "The Inheritance of Epilepsy." Chas. Knight & Co., Ltd., London.)

Many acquired conditions, only remotely or not at all related to heredity, have been observed to be associated with epilepsy in a certain, relatively very small, number of cases. Among these are organic brain diseases, peripheral irritations, sources of infections and auto-intoxications, birth injuries, infectious diseases in childhood, cardiac diseases, drug poisoning, chiefly alcohol, and many other factors. The etiology of epilepsy, in a word, presents a baffling complexity, but does not indicate that the task of cure and prevention of epilepsy must be regarded as hopeless. A more detailed survey of the facts than can be given here would rather show that a considerable percentage of epileptics can be cured if proper treatment could be given at the proper time, and that a still larger percentage could probably be prevented.

Since preventability and curability are not necessarily entirely dependent on our knowledge of the causes of the defect or disease in question, a word further may be said in regard to this. From the older observations and statistics different writers have concluded that from 5 to 15 per cent are curable. (Turner, W. A., "The Prognosis of Epilepsy," Trans. Nat. Assoc. for Study of Epilepsy, Vol. III, 1904-1905.) More recently Flood, of the Massachusetts Hospital for Epileptics, summarized his observations as follows:

Fifty per cent of all convulsive conditions are curable.

Twenty per cent of established epilepsies in the young are curable.

Five per cent of old established cases are curable.

One per cent of cases with mental deterioration recover.

(Boston Medical and Surgical Journal, CLIX.)

Cure in the case of epilepsy must, of course, be taken as a relative term. In the sense of never being liable again to seizures irrespective of after-care, and health, probably very few epileptics are ever cured¹. Cure of epilepsy means entirely or practically free from all symptoms for an indefinite time, if preventive measures against recurrence are observed. Flood's figures and classification bring out the importance of early treatment and lead us to wonder how very extensively epilepsy might perhaps not be reduced if the best possible care and treatment could be given in case of all epileptic manifestations at the earliest possible moment. The duty of the state in the matter hinges largely on this question.

Mental Traits. The epileptics have a number of mental traits which make them, above almost any other class of dependents, proper cases for state aid and care. Among the first of these is the epileptic seizure itself. With the character of these we are all familiar. The individual seizures vary in frequency from status epilepticus, when consciousness is not regained between successive seizures, to only one or two seizures a year, or even less. Its severity ranges from abrupt loss of consciousness with prolonged convulsions that leave the patient in a state of exhaustion for hours, to the momentary mental lapse without loss of consciousness or convulsions, in the so-called psychic epilepsy. The important features, from our present standpoint, of the typical grand mal seizure are the abrupt loss of consciousness, usually without warning to the patient or observer, and its effect on any observer not accustomed to witness them. In some cases the epileptic has a forewarning of a seizure about to take place. Usually he has not, and the loss of consciousness is almost instantaneous. With an initial cry, or even without a sound, the patient drops as though shot. This trait makes the disease of peculiar danger to the patient. Death or serious injury to epileptics in falling from high places, down or through open stairways, into moving machinery, on a crowded thoroughfare, into the water, on hot stoves, and so on, are not at all uncommon. The ever-present danger of such an accident during a seizure requires an epileptic to be kept under constant observation, even though the seizures occur very infrequently. The entirely intelligent and capable epileptic with only a seizure or two a year thus becomes a constant charge, and a source of great anxiety to relatives. The patient who is in every respect normal and capable of transacting his business except for a few hours a year, is reduced, because of this one trait alone of the sudden unwarned loss of consciousness in the epileptic seizure, almost to the level of an invalid that needs a constant attendant. The only way to avoid the danger resulting from this trait is to limit the patient to an environment that does not present any possibility of serious injury from a sudden fall.

The effect that an epileptic seizure has on the average observer carries with it consequences hardly second in importance to the danger in the sudden fall. It means practically social isolation, for the epileptic. The epileptic child is barred from the schools because normals object to his presence. This means that he will grow up without a common public school education, usually without any educational training at all beyond the results of a few sporadic and ineffectual attempts in the home on the part of parents or other relatives. The histories of a very large percentage of our institutional cases bear telling evidence of this fact. He is shunned by playmates as a child, and by adults later. He is refused employment or dismissed when he has received it, not because of inefficiency or inability to meet the requirements of the tasks set, but because his associates in the office, store or factory object to his presence. But few employers will employ an epileptic, and the story of epileptics' being discharged on their disease's becoming known is a common narrative with epileptic patients.

Secondary traits follow from these conditions. The epileptic adult, though intelligent, is handicapped further because he has come to maturity without a schooling or industrial training of any sort. In the majority of

cases he has been the petted and favored child in the home, undisciplined and spoiled. He expects favors and sympathies in a degree he is not likely to receive outside his own home. He is unwilling to do often what he is entirely capable of doing, and an habitual laziness is an epileptic trait most observers have noted. These faults of character, the result of a wrong bringing-up, require a re-education that can be given only outside the home. Many an epileptic refuses to accept employment and become independent of matter of course.

Two other and closely allied mental traits of the epileptic are dementia home or state because he has been brought up to accept dependency as a and feeble-mindedness. We do not know what proportion of the epileptics are subject to either or both. Epileptics that come to our institution for care or treatment are practically all feeble-minded, or in the process of mental deterioration. The dementia is usually of a simple sort, a truly involuntional process unaccompanied by any of the usual intellectual and emotional disorders of insanity, such as illusions, fixed ideas, phobias and other emotional disturbances. It is often difficult to determine in a single examination whether a case is mentally deteriorating or is a simple combination of epilepsy and feeble-mindedness. Our ordinary intelligence tests usually fail to distinguish simple dementia and feeble-mindedness. The history of the case must furnish the differential diagnosis. Again, all three conditions, epilepsy, feeble-mindedness, and a process of mental deterioration, are undoubtedly often combined in the same case. Considering the inmates of epileptic colonies alone, some very striking facts are revealed in regard to the mental condition of these patients. The total epileptic population in 1911 and all admissions since 1911 at the Minnesota School for Feeble-Minded and Colony for Epileptics have been given the regular routine mental examination to determine their grade of intelligence. The statistics on their examination show that but very few of these epileptics are intellectually normal, and many are quite low-grade feeble-minded. The following table gives the number of cases among all examined since 1910 to 1916 for each grade of intelligence: idiots, imbeciles, morons, borderline, and normal.

	Idiots.	Imbeciles.	Morons.	Normal.
Number of cases	13	90	102	5
Per cent	6	43	49	2

In this table the idiot is defined as one with an intelligence of from 0 to 24 per cent of the average normal; the imbecile, as one with an intelligence of 25 to 49 per cent of average normal; and the moron, from 50 to 74 per cent of average normal. The five cases classed as normal were above 75 per cent. The classification is based on mental-test results alone, which, as was noted, do not distinguish between feeble-mindedness and simple dementia. We have not gone into the history of each case separately to determine what proportion of these cases are truly feeble-minded and what proportion were intellectually normal in early childhood, with mental deterioration later. There is no question, however, about both classes being represented here. The distinction is not of prime importance in this connection. The subsequent, as well as the preceding, history of the two classes of cases is, of course, quite different. But the present mental traits often have a very striking similarity, which call for approximately the same

kind of immediate provision and care. The significant thing about these statistical facts is that the institution epileptics are, with very few exceptions, probably not in the institution primarily because of their epilepsy, but because of the secondary mental condition, feeble-mindedness and mental deterioration. The mental deterioration, or feeble-mindedness, is the main factor. Although we do not know from observation what the mental condition in general is of those epileptics that do not come to our institutions, the only rational hypothesis to make is that the majority of epileptics are in all probability intellectually normal, or nearly so. The epileptic institutions get custodial cases only, the worst portion, who in every other kind of ailment are in the minority.

An important question, in this connection is that of the relationship between these several fundamental traits, epileptic seizures, feeble-mindedness, and dementia. It has been held that the last two are in a large measure the effects of frequent and severe seizures. Thus says Berkley: "The most numerous class of epileptics show, after the lapse of years, a slowly progressive dimming of the active perceptions of the mind, a loss of memory, a blunting of the affections, a permanent mental obtuseness which increases and grows until, if the patient lives long enough, there is a more or less absolute annihilation of all the faculties. Throughout the course of this progressive enfeeblement there are no signs of any active insanity, motor disturbances, delusions, or hallucinations; only an increasing obscuration of the intellect is to be noted. The final result is probably eventually brought about by the repeated paralysis of the muscular coats of the vessels, consecutive to the frequent paroxysms, by the consequent vascular thickening, with damming back of the return lymph flow, leading to disturbances in the nutrition of the encephalon, and in a degree also to the exhaustion of the nerve cells from the explosive discharge at the time of the fits." (A Treatise of Mental Diseases, N. Y., 1900.) It must be added, however, that feeble-mindedness is frequently found present where the seizures have not been severe or frequent. It seems, therefore, that all three are often symptoms of a more fundamental underlying disease process. If feeble-mindedness and dementia in epilepsy are in any large measure secondary to epileptic seizures, and if the patient can be cured of these in a great many instances when treatment is begun early enough, it is seen that many of even these custodial cases of epilepsy could be avoided by proper treatment at the proper time.

Other secondary mental traits of epilepsy need to be mentioned. Among these is especially a very much heightened irritability. So much is this the case that the expression "epileptic irritability" has become a byword among observers of epileptics. On the slightest provocation, and often seemingly from no external cause at all, the epileptic may fly into a fit of rage and ill-temper. In this condition he becomes not only malicious and cruel to animals or children but often criminally dangerous, resulting in acts of violence and even murder. Moroseness, suspicious dispositions, an accusing demeanor toward associates, are closely associated with this trait. Delusions in regard to the good-will and intent of those about him readily develop on this foundation, which brings the epileptic to the borderline of criminal insanity.

These facts about the traits of epilepsy can leave no doubt that the state can do both itself and the epileptics many services *to*y instituting proper methods of prevention, cure, training, and care. In the main this has, in fact, never been questioned. The epileptics have long taken their place with the insane and feeble-minded as dependents of (the state. What may be noted further in this connection is that the state has nowhere gone nearly far enough in this direction. We have only made a bare beginning with the epileptics as compared with our efforts made in the interests of the insane, or even the feeble-minded. A few really urgent needs may be briefly stated here.

The first is the need of separate institutions for the epileptics. The feeble-minded and the epileptics are now in most cases cared for in the same institutions. In 1913 there were only nine separate institutions or hospitals for the epileptics in the United States. These were in the following states: Connecticut, Indiana, Kansas, Massachusetts, New Jersey, New York, Ohio, Texas, and Virginia. (Mullan, E. H., *Epilepsy*, N. Y. Med. Jour., Dec, 1913.) Some officials of combined feeble-minded and epileptic institutions argue that there is no especial disadvantage or objection to this combination. None, so far as I know, has ever claimed any advantage in having these two classes together. I am of the opinion that those who see no disadvantage in having them together have regarded the epileptic so much as a side issue merely that they have never given thought to the question as to what the epileptics really do need and what might be to their benefit as well as that of the state. The fact is that in the present day of large and overcrowded institutions for the feeble-minded, the epileptic is usually more or less lost sight of as an epileptic. He is handled in much the same manner as is the custodial feeble-minded, which, as a matter of fact, he is apt to be under the circumstances. The present association of the epileptic and feeble-minded is largely a remnant of the past, when mental defectives of all kinds were classed and housed together as insane. We have separated the insane and the feeble-minded. There is as much reason for separating the epileptics and feeble-minded. The needs of the latter two classes have no more in common than have the needs of the former. In the first place, it is entirely impractical to have the feeble-minded and epileptic mingle, even when they are in the same institution. Separate buildings for the two are required, when cared for in one institution. This requirement removes the argument of economy in buildings in having them together. The first disadvantage to the epileptics lies in the very fact of the association with the feeble-minded. The greatest obstacle to voluntary commitment of the feeble-minded themselves to an institution is the stigma connected with such commitment. The same holds true, but in a much greater degree, to the epileptics. Parents of epileptic children, and, still more, intelligent adult epileptics, go to a colony for epileptics associated with an institution for the feeble-minded only as the very last resort. This is undoubtedly one big reason why the epileptics in such colonies are practically all feeble-minded or mentally deteriorated in a more or less degree. Only the hopeless and custodial cases go there.

The second disadvantage in the association of the two classes lies in the fact that it results in a relative neglect of the epileptic's special needs. By

this it is not meant that the epileptics in such colonies are neglected in the common meaning of this term. What is meant is that specialization in care and treatment does not progress as rapidly for the epileptic as it should. The epileptic needs a specially trained attendant more than does the feeble-minded, but when the two are associated in one institution attendants are readily and frequently shifted from feeble-minded to epileptic, and vice versa. The epileptic needs a highly specialized kind of training, including especially training in right habits of living, in self-control, and re-education to eliminate established bad habits. This they do not receive at all. We have advanced far in special methods of training the feeble-minded, but the schools for the feeble-minded that house epileptics have not yet begun to even think of this problem of special training for the epileptics. Likewise special medical care and medical research in epilepsy is not encouraged when epileptics are associated with the feeble-minded, who outnumber them ten to one in the institution. The medical staff in such an institution is primarily for the feeble-minded, and rather incidentally, only, for the epileptic. There is no time or opportunity to develop an interest and efficiency in the medical treatment of epilepsy as a specialty. Medicine has done much for the insane because insanity has always been a problem for investigation and has received the benefit of medical study. The general attitude of medicine towards epilepsy, on the other hand, is quite unfavorable. The average physician regards the epileptic as hopeless and epilepsy as an entirely fruitless field for investigation. He does so largely because our medical knowledge about epilepsy comes chiefly from observation of epileptics in our present institutions for the feeble-minded, and for these cases this attitude is well founded.

A separate institution for the epileptic is the first step to be taken. This alone, however, will not accomplish the ends desired, unless such an institution directs its activities towards more than the care, treatment, and training, as now given, of merely those cases that happen to go there on their own initiative. Any state institution for any class of dependents that limits its activities to what is contained within its own walls, is not serving the state in the capacity that should be expected of it, and could not be classed with the progressive institutions for the feeble-minded and insane of the last decade or more. A separate institution for the epileptic should set for itself at least three general problems, towards the solution of which all its activities should be constantly directed. These are: First, the custodial care of the badly feeble-minded and demented epileptic. Second, a special training and re-education adapted to the special needs of the more intelligent epileptics. Third, reaching epileptics outside the institution in the initial stages of the disease, and instituting curative and preventative measures. So far as I am aware, the state has nowhere gone much, if any, beyond the attempt to solve the first of these problems. It is the least in importance by far of the three. It was noted that at the Minnesota School for Feeble-Minded and Colony for Epileptics we receive practically only feeble-minded and mentally deteriorated cases, chiefly of imbecile and moron grade of intelligence. While most of these have sufficient intelligence to be capable of considerable training of practical value, the combination of the feeble-mindedness with the epileptic traits makes of them chiefly custodial cases. They enter also at an age too late to make cure possible. The

disease is well established, and resultant secondary traits of character are well fixed. For the cases in our institution considered above, the age at the time of admission was as follows:

Age	0-5	6-10	11-15	16-20	21-25	26-30	30+
Number cases	1	26	43	29	35	24	52

Without going into the histories of any of these cases, these figures alone show that the epileptics are not sent to the institution at the beginning of the disease, but usually many years afterwards.

Practically all the training institutions for the epileptics attempt to give their patients is limited, so far as I know, to ordinary school training, or industrial training of the same character given to the feeble-minded of the same grade of intelligence. While regular school training is nearly always badly needed because badly neglected, this is not the chief and first need. The first requirement in training of epileptics is right habits of living. The frequency and severity of the epileptic seizures depends fundamentally on this, and their habits of eating, drinking, occupation and recreation are often decidedly detrimental. When bad habits of this sort exist, re-education is the first step and not an easy one to take with epileptics. The difficulty of breaking old habits is equalled by the difficulty, of establishing the new ones in their place so firmly that they will persist in combination with a weakened will, unguided by external influences, when the patient returns to society. The second requirement in training is character training, which is also likely to mean re-education as much as establishing new habits of thinking and action. The chief factors in this character training are overcoming an established laziness and the attitude that their disease excuses them from all effort on their part; and training in self-control to counteract the natural irritability inherent in the disease. The third requirement is school and occupational training. To these educational efforts on the part of the institutions might well be added a systematic plan to find employment for the patients when they leave the institution and to institute an after-care system such as is now being attempted in some places for the high-grade feeble-minded.

This care, treatment and training of epileptics within the institution, however, is of minor importance as compared with what it seems might be done in the line of prevention and cure if efforts were made early enough, before there is any thought on the part of parents of sending a child to an institution. It was noted that a large percentage of genuine epilepsy can be cured by treatment if begun early enough. Fifty per cent of all convulsive seizures in infancy and childhood can be prevented from developing into epilepsy. The prevention of epilepsy is not alone a matter of removing the original causes of the epileptic seizures. Habit seems in some degree to play a part in every established epilepsy. Many high authorities think that habit plays a very large role in the frequency and severity of the seizures. The more frequently the cortical motor cells are stimulated to send their neural impulses to the muscles causing their convulsive contracture, the more readily it will take place with a slighter degree of stimulation. While the correctness of this view is difficult to demonstrate, it is equally difficult, on the basis of the well-known physiological principles of habit formation, to see how the facts could be otherwise. The view, at any rate, helps very

materially to explain why epilepsy can frequently be cured if treatment is begun in its earliest stages. Some of the secondary traits of epilepsy very obviously belong to the realm of habit, with a pathological factor to start them. The part played by habit formation in epilepsy, however, need not be stressed. It merely offers a partial explanation, while the fact itself of the curability of epilepsy is the important thing to keep in mind. Some agency in the state is required which will induce parents to seek expert treatment at once in all cases of convulsive seizures in children, and the means of securing this treatment should be readily obtainable. The special institutions for epileptics should be the center from which efforts to obtain these things should emanate.

This, I take it, is the state's first and chief duty towards itself and the epileptics.

The Chairman: We are under great obligations to Miss Merrill for her presentation of this somewhat abstruse address. I say "abstruse" because of my regard for the Doctor. I thought the paper was a little involved at the start, but it developed¹ a practical side which must appeal to all of us, and the wind-up offset in a degree its abstruseness. There has been no doubt in my mind that the epileptics have no business whatever in a school for feeble-minded, and as I followed Dr. Kuhlmann through, I saw how clearly he was working up to this very definite and careful conclusion.

I should be very glad to hear some discussion of this question, particularly along the line of the Doctor's conclusion that the treatment and care of epileptic unfortunates has not been approached in the way it should be.

James J. Dow, School for the Blind: I think this is one of the most noteworthy papers that has ever been presented before this body, because it has placed clearly before us the mistakes of the past and presents with equal clearness the path for the future. It is not necessary to dwell upon the mistakes of the past; it is not pleasant to do so; and yet I recall, between thirty-five and forty years ago, the tremendous enthusiasm and optimism of the first superintendent of the Minnesota institution, Dr. George Night, with regard to the epileptic. He was brought up in an institution or the feeble-minded, but he became intensely interested in the problem of the epileptic and had very high expectations of what could be done for them. Those anticipations and expectations have never been realized in the state of Minnesota, and they have never been realized for the very real and cogent reasons that have been presented in this paper. It won't be for me to trench upon what has been said with regard to the problem, it as a matter of fact the relations that exist between the epileptics and the feeble-minded in a combined institution make it impossible to secure an opportunity to deal with the epileptic problem.

I hope that the result of this paper will be educational in its effect on the state; that we may come to know that we have not yet touched the epileptic problem; that it does exist and should be met, and should be met as a problem by and for itself, absolutely and entirely separated from any sequences like feeble-mindedness.

Dr. Phelps: Chronicity of lifelong duration, or chronicity in a broader sense, has been one of the basal points in determining who of these un-

fortunates shall be cared for by the state; the lifelong duration of epilepsy and imbecility has thus been the determining factor. The question now comes up whether we shall enter into the field of the curable; the curability bringing in the more temporary troubles. You have the young epileptics, thought occasionally curable. Are you going to try to cure the children in their first attack of epilepsy? Are we as a state going into that sort of thing?

Then there is tuberculosis. You have a wide and extensive field opened at once. So on 'through the whole list: the inebriates, the criminals, dissipated people, infectious diseases, the syphilitic. There is a field without limit if you want to widen out your aim; including chronicity but coming down to the more temporary troubles of mankind.

The Chairman: We should be glad to hear from Dr. Davis, the physician at the School for the Blind.

F. U. Davis, M. D., Faribault: I shall be pleased to say a word on this paper, because the subject is one of interest to me, and I am very glad to follow Dr. Phelps, because he has given me a text for what few words I may say. He speaks of the chronicity of epilepsy.

My only criticism of the paper—the whole criticism must be considered favorable—is that possibly, by inference, it makes us a little bit too sanguine of the possibilities of a cure. I do not believe that epilepsy at any stage can be rated as a curable disease. Now, don't misunderstand me. There are cases of epilepsy which are cured, but I am free to confess—as a medical man it may be an admission of failure on the part of the profession—that I regard those cases as cases of spontaneous cure rather than the result of any definite or particular medicinal line of cure. I think epilepsy is a chronic condition and practically incurable. We used to consider that tuberculosis and syphilis were incurable—we did not give so much thought, perhaps, to epilepsy—but I believe the prospects of a cure in the case of syphilis or tuberculosis is a hundredfold, greater than the cure of epilepsy. This is a very dark side of the question to take, but after considerable study I have come to this conclusion. I hope that some time it will be proved that I am wrong.

In the Minnesota School for Epileptics at Faribault, Dr. Rogers was very enthusiastic in his work with the epileptics. He was continually trying to find methods of improvement and of cure. Frankly I do not believe Dr. Rogers or anyone else ever attained any degree of success. Expensive hydrotherapeutic apparatus was installed; treatments were instituted; but I think we are no nearer solving the question today than we were before Dr. Rogers and certain other men gave it very serious study.

I made the statement to Mr. Hanna that many cases were spontaneously cured, and he cited the case of a girl in his institution who five years ago was an epileptic. She finally came to him and asked to be transferred to another part of the institution, and at length he complied with her request. Shortly after the transfer, five years after the latest attack, the poor girl had another very violent spasm of epilepsy.

These people, as has been pointed out in the paper, are a menace to themselves and a menace to the community. I think, as far as the treat-

ment is concerned, it is a very, very dark subject with which to deal. You can treat pain by giving morphine, but you cannot treat disease by giving morphine. The end result of treating pain with morphine is worse than the beginning; when the effect of the morphine is gone, if the pain is chronic it returns. You can treat epilepsy by giving bromides, but the end result is worse than the beginning; imbecility and feeble-mindedness in many cases follow treatment for epilepsy.

I wish I could speak more encouragingly, but to me epilepsy has always been and always will be, I fear, a very discouraging subject. However, it is a chronic condition which the state must face; it is a condition which the state must take care of.

I am particularly pleased with one point in the paper: separating the feeble-minded from the epileptics; for this reason; with many, many people there is a sort of stigma, attached to sending their friends to an institution for the feeble-minded. If the two were separated, patients would more willingly be brought to an institution for the epileptics, and could lead there a happier and more useful life; and the friends outside could lead a much more happy life, knowing that their loved ones were properly cared for. Not only the people themselves, but the state and the community would be benefited thereby.

Mr. Vasaly: I should like to ask Dr. Davis how he thinks people would feel about sending their friends to a colony for epileptics.

Dr. Davis: I think they would have very much the same feeling that they would experience in sending a person to a sanatorium for the treatment of tuberculosis, for instance. It is unfortunate that there is this feeling toward an institution for the feeble-minded; but there is. I think there would be no such feeling toward an institution for epileptics.

Dr. Dow: I think we ought not to say "colony for epileptics," for it assumes at the start that our work is practically a failure and you are going to colonize this class of people. We do not speak of colonies for the insane, although a lot of them we are not going to cure. Why not call it something else that has not that depressive forecast of prospect? The place should be one for the prevention of the development of the disease if not the cure. You can often do much to return them to society and aid them, if you get them soon enough. I wish the word "colony" were blotted out in connection with this institution.

Dr. DuBois: I should like to ask my pessimistic friend, Dr. Davis, if any disease which presents cases of so-called spontaneous cure can be rightly classified as an incurable disease?

Dr. Davis: I cited Mr. Hanna's case as bringing in the question of spontaneous cure. That brings us to the question, What is cure?

The Chairman: When doctors disagree, we can not go very far.

Dr. Kilbourne. The only success in the cure of epilepsy has been achieved in institutions devoted especially to the treatment of epilepsy, like Dr. Spratling's institution at Solvay, New York. I have seen few, if any, cases cured in a hospital for the insane. They may not have a convulsion for a long period of time, but sooner or later the accumulation is so great as

to prove fatal. To cure a disease we must remove the cause, and; few of us know just what the cause of epilepsy is. The consequence is that the treatment has been largely experimental. Many of these cases have night attacks of epilepsy, and do not even know it, and their friends may not know it for years. Such cases usually develop into typical epilepsy.

As far as prophylaxis is concerned, it can be directed only to those children who have convulsions in their infancy, as has been stated.

By all means there should be a separate institution, because the cure of epilepsy depends largely upon the diet and certain prescribed routine.

The Chairman: I think that is the crux of the whole situation. Dr. Kuhlmann, in his paper, referred¹ to a case as being improved by forming a new habit of thought, so to speak, by being removed from an environment too suggestive of the attacks. That gets back to the case Dr. Davis referred to. If that girl had been sent to an improved environment, perhaps she would have retained the improvement she had made.

Dr. Kilbourne: In speaking of these cures, do they mean remissions or cures? If a person is cured for a year only, is that a cure or a remission?

The Chairman: Call it improvement, and let it go at that.

Dr. Kilbourne: We have paretics that are incurable who may have a remission for a year or so, but they are not cured by any means. They are still, or should be, kept under guardianship.

The Chairman: The next subject on the program is "Drug Inebriety," by Dr. Freeman.

DRUG INEBRIETY

By Geo. H. Freeman, M. D., Superintendent Willmar State Asylum

Mr. Chairman, Ladies and Gentlemen: It seems that I am put in just about the proper place. The pessimists have had the floor for the last few minutes, and I am very much of a pessimist. I feel in a way that I am at a disadvantage. I learned but a comparatively short time ago that I was to read this paper. I knew that I was to talk about what I regarded as a failure, and I did not have time to find out how many other failures there were in the country, so I shall have to stand alone.

In all ages in the history of mankind many men have sought to drown their sorrows and intensify their joys by the use of drugs. For centuries the white race has found its solace in alcohol, but of late we have been alarmed by the rapid and widespread increase in the use of other drugs far more deadly in their effects. Opium, once hailed as the panacea for all ills, now annually claims a host of victims.

The original home of the poppy appears to have been in the valley of the Nile. The first mention of its use was found in hieroglyphics, dating back to a very early stage of Egyptian civilization. Homer describes, in the fourth book of the Odyssey, a drug, which was evidently opium, sent to Helen from the wife of Thore, an Egyptian king.