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The Prevention of Feeble-Mindedness.

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I have listened with interest to the papers and discussions this morning and have been impressed with the fact that the arguments are all based on the same fundamental principles. One might almost conclude that the essayists had had common experiences and, so far as literary assistance is concerned, had derived their information from the same books. This fact should be recognized: all uplifting movements are for the same general purpose and their operations are based on the same fundamental principles. The work of the Juvenile Court, the social settlement, and other lines of work discussed at this Conference, have for their aim the development of a better individual citizenship, the reduction of crime and degeneracy, and the lessening of the financial burden upon society because of evil and preventable misfortunes of all kinds.

The improvement of social conditions along the lines already discussed tends to the prevention of feeble-mindedness and idiocy. While there is no specific for the absolute cure or prevention of this social ill; whatever makes for the development of physically, mentally and morally healthy individuals and elimination from society of influences that tend to degrade and debase, makes for a better heredity and a better environment for the coming generation. As to this generalization, we all agree. The experience and observation of physicians, teachers, lawyers, jurists, and, in fact, all other thoughtful people, to say nothing of the teachings of the pulpit, confirm this general statement. While we cannot, even in a large number of cases, determine the relationship between mental and moral defectiveness and its specific cause, we can in some cases be certain of the relationship. Heredity, as applied to human beings, is a science only in its infancy. For evident reasons but little experimentation can be made in this field, and we must look to the vegetable kingdom and the lower animals for definite experimentation and study of the laws involved. The experiments of Mendel, an Austrian monk, on plants something less than fifty years ago, laid the foundation for a true science of heredity. He found that by cross

fertilization between closely allied species of plants or well marked varieties of the same species in which there was a distinct contrast between the parents, as for instance in color, character of seed pod, length of stem, etc., the progeny exhibited the respective basic characteristics of the parents according to a definite ratio; from the parent exhibiting the dominant type three-fourths of the progeny exhibited its dominant characteristics; one-fourth exhibit a recession with reference to these characteristics. Of the three-fourths representing the dominant characteristics one-third would transmit this dominance in perpetuity and two-thirds would transmit the characteristics in the same ratio exhibited in the first generation. This law has been found to hold good so far as the experiments have been carried out, not only in plant but in animal life.

For the purpose of this discussion, it is only necessary to say that Mendel's law tends to confirm, in a general way, conclusions arrived at by many observers concerning human heredity, and the following may be emphasized as representing practically the generally accepted views of the best authorities:

FIRST—The constant presence of ancestral tendencies, either latent or manifest, which latent tendencies may themselves become manifested in later generations.

SECOND—That the so-called Galton Law is approximately true, viz: that the father and mother contribute jointly, upon the average, one-half of the child's stock of potentialities, and other ancestors contribute in a decreasing ratio proportional to the distance.

THIRD—That the positive, aggressive characteristics of one parent, as compared with the more negative ones of the other, will tend to dominate the progeny.

FOURTH—That some deviation from the type will occur either in progression or recession that no known law yet explains and for which there is, therefore, yet no known preventive (though there is reason to believe that further knowledge of the Mendel law will disclose the explanation of these variations.)

FIFTH—That decided aggressive variations tend to reproduce themselves in succeeding generations.

SIXTH—What is said of anatomical is true of physiological and functional potentialities, hence moral and mental characteristics will have an inherent bias, or tendency.

This then brings us to the consideration of the subject of environment and the influences that affect the development of the individual. While we can speculate on the questions of heredity and feel that what is known is helpful and suggestive, and are assured also that the future has much in store to add to our knowledge of its laws, the field of environment is one in which we can all study and work and obtain definite results. It, by the improvement of environments, we can improve individuals, and the few facts concerning heredity already noted are true, then our labors to improve environments, will also tend to improve heredity.

I wish to refer briefly to a few points concerning environment and you

will pardon me if I re-produce what I have presented on two other public occasions recently, not because there is anything new in it; but because of its importance.

The developmental period of a human being, as is well known, covers four distinct stages; first, the pre-natal; second, infancy; third, childhood; and fourth, adolescence. I can undertake to refer to only a few principles involved, and to touch, as it were, a point here and there.

When the embryo of the future human being begins its development, it starts with the potentialities derived from inheritance. Its future depends upon the relative dominance of these potentialities and the character of the influences that shall thereafter be brought to bear upon it. Its first requisite is nutrition. Nutrition, while always important, is the one all important need of this early organic entity. Consequently, the mother should be in good health and spirits to insure a normal and healthy blood supply which is essential to this nutrition. Right here I wish to emphasize the fact that there is little reliable authority for the belief in "maternal impressions," although fright, shock, or unusual hardship might interfere with the proper nourishment of the mother, and thus indirectly contribute to the ill nourishment of the developing organism, and, of course, should be avoided. What is more to be feared, however, are constitutional diseases, probably not suspected by any one but the family physician, that keep the blood of the mother in a poisoned state and thus interfere with nutrition. This leads me to question whether there is a single sane reason why candidates for the marriage state should not be required to present clean bills of health and reasonably good heredity,

INFANCY: (THE STAGE FROM BIRTH TO SEVEN YEARS.)

If the nutritive potentialities in the embryo have progressed normally and the child meets no untoward reception at the threshold of visible life, it passes in an apparently healthy condition into the stage of infancy, which covers a period of seven years. This is the stage of rapid brain growth, special sense education, motor co-ordination and speech. It is the age when the tissues are passing, as it were, from a plastic condition to that of definite functioning—the period when the brain, through the organs of special sense, is acquiring impressions by the thousands and all the different tissues and organs are, as it were, becoming acquainted with one another and learning their mutual relations and duties.

During the several stages of the developmental periods from birth to maturity, the inherited potentialities are to be matched against environmental influences. The development of the physically healthy infant into a mentally and morally healthy adult, depends upon its powers of resistance to destructive influences. Hereditary taints are "weaknesses of the defences." There are enemies to life and character ever present and the duty of the parent, friend, and teacher is to build up the defences. During the different stages, different weaknesses are more apt to become manifest; hence their separate study. The essential method of treatment however, is the same for all stages, and all training and treatment is for the double

purpose of developing the individual to his greatest capacity as an individual and a social unit, and to enable him to leave to his posterity an improved set of potentialities.

Nutrition then, must still be considered first, for upon a healthy body, healthy tissues and cells of all kinds, must depend the largest possibilities for healthful and forceful characters. While this is true during the whole period of life, it is especially true during the developmental period and its importance during infancy and childhood is only second to its importance during the previous period. Next in importance, but not in evolution, I should place the training of the will and the development of the habit of self-control. The men and women that make the real progress in every station of life and those who reach the greatest eminence—the truly great—are not the geniuses of momentary brilliance, but those whose acts and labors are incited by a steady, irresistible purpose. There is no stronger element of "defence," than the will, and he who when the hereditary promptings to evil stir his blood and incite him to wrong-doing, can ward off the evil and wend his righteous way unmoved, becomes a prince among his fellows and may give to his descendants the richest possible heritage.

As an infant develops, it becomes "all eyes and ears." This is the stage of impressions and upon the character of these impressions will depend quite largely the future adult. The foundation of right ideals is essential to the right exercise of the will. Infancy is the imitative period. There is no question of the utmost importance of laying a foundation for right moral development at this time, especially if there are unfavorable tendencies. This is not done best by didactic instruction, but by constant example.

"The knowing of right from wrong should always be associated in the child's mind in the doing of it by every one with whom he comes in contact. No doubt, up to seven years morals are more of an automatic habit than of a real conscience." (Clouston)

There are children who seem devoid of a conscience and who are instinctively deceitful and dishonest. This condition, I think, is rightly ascribed to bad inheritance. Those of us who have had the handling of such children, the so-called "moral imbeciles," realize the importance of early impressions and environment for them. In fact, as we usually see them they present practically hopeless problems because the opportunity for early and correct environment is passed. Much, however, can be done by early training of the physical activities and minimizing of literary-training, which is to them only an auxiliary for wrong-doing. By confining their activities to the limitations of a custodial institution, just so many cases are diverted from lives of crime to those of real, though limited, usefulness.

THE PERIOD OF CHILDHOOD: (GIRLHOOD AND BOYHOOD, SEVEN TO FIFTEEN)

Brings its peculiar problems of development. The normal boy and girl is a bundle of unlimited muscular and mental activities, that are becoming more and more co-ordinated. Here again the demand for wholesome environment is imperative. The opportunities are larger and should be utilized for living, as much as possible, in the open air and sunshine. It

seems almost trite to say that the food should be plain, simple and nourishing.

"The boy or girl during school life should always be plump and hard in muscle, free from headache, cheerful and should sleep well."

If this is not the case, a cause should be sought. Possibly eye strain, polypi in the nose and throat, or other pathological conditions, easily determined and remedied, may account for the symptoms.

It is during this stage that the distinctively "backward" children are noticed, and quite a percentage of feeble-minded children may not be recognized until they have entered school. The latter must be counted out of the race and considered separately. The backward child, however, is not to be denied the best of training. He is slow to comprehend, but he exhibits a tenacity of purpose. While he seems to accomplish but little at any one time, in the course of a year he makes definite permanent progress. He shows fairly good judgment in such matters as are comprehended by his experience. The feeble-minded child, on the other hand, lacks application and such as he has, he manifests in a variable manner. What he seems to learn one day, he forgets the next. His judgment is but little developed. The backward boy, if from a good home, may make a good honest citizen. The feeble-minded child will find his best home among his kind in the village of the simple; where trained to the limit of his capacity he can realize his greatest happiness and usefulness protected from adverse fortune and the opportunity to further vitiate the stock.

ADOLESCENCE: (FIFTEEN TO TWENTY-FIVE)

It is another critical stage in development. The tendencies that will dominate the adult begin to assert themselves. Hereditary weaknesses and elements of strength, modified as they may have been by previous training and environment, become definite. Neurotic tendencies may develop into active insanity, epilepsy or dementia. The purposes of life are then shaped. The impressions and resolutions then formed affect the tenor of one's life, as a general rule, more than those formed at any other age. The foundations already laid must determine largely the superstructure, for there is but little opportunity to remedy former mistakes. The most important considerations for this period of life, having reference to the welfare of the race, are, in my judgment, first, The proper determination and classification of the units that make up this passing stream of growing adolescent humanity; second, A diverting of the unfit into those paths of usefulness that shall minimize their effect upon posterity; and, third, The determination and application of the best methods of training and education as applied to the fit that shall in each case make for the highest type of manhood and womanhood respectively. This second involves a more rational method of consummating marriage.

While this is a matter to which radical measures cannot be applied, it is one that can be improved by the application of common sense, if people will agree to profit generally by available knowledge. While the wisdom of the ages teaches that the best marriages are governed by absorbing love, adolescence is a period of wild fancies, many of which are ephemeral.

This fact should be considered in the management of early attachments and the education of the young themselves. The time will come when this relation will generally be assumed only after mature deliberation, as is the case with some sects, and the family histories will be studied carefully in the interests of the candidates.

As Dr. Clouston suggests, these histories are usually known after marriage, why should they not be disclosed before? Attempts to conceal them would be presumptive reason for prohibiting the union. It is not inconceivable that an advisory commission of experts could be provided for certain districts, to which cases involving doubt could be referred as hypothetical ones, without disclosing personal identity. This would represent a transitional period anticipating the time when family pedigrees will be matters of public record,

CONCLUSION:

In this brief and imperfect discussion I have tried to point to some of the principles that, recognized and acted upon in the raising of children, would tend to improve the stock. It has been assumed that in each stage of development there would be found in a given population a more or less uncertain percentage of unfit individuals. We may expect, that, under the most carefully arranged marriages, there will be an occasional congenitally idiotic, deformed or imperfect infant. An occasional child will fail to develop normally and the result will be an a-social or anti-social being. The phenomenon of breaking down of the "defences" is liable to occur at any period of life; for, as we all know, many grow into maturity only to break down under some adverse strain. There are others who go through life possessed with similar limitations but who happen never to be subjected to any assault too strong for their "defences." From this it will be readily seen that the early recognition of any form of degeneracy, is an advantage to the social welfare because of the opportunity thus afforded for eliminating it as a genetic factor. The best form of elimination, consistent with altruistic sentiment, is isolation. The most danger lies in the freedom of the borderland cases of insanity, the habitual criminal, the chronic inebriate of all classes, and certain lawless scions of the wealthy rich, all of whom at present are at liberty to propagate and introduce their potentialities for degeneracy into the purest stock. The partially redeeming considerations are, first, That positive aggressive parental characteristics are more dominant, in the majority of the progeny nature tends to correct evil and to build up, if it has a fair chance; second, That training and environment can be made to reduce the potentialities for evil; third, That proper educational training, physical and moral, can and does improve the general stock of manhood and womanhood; fourth, That the extremely vitiated tend to segregate from the better class and their stock tends to die out.

The growing sentiment among penologists in favor of the indefinite sentence for criminals, will doubtless result eventually in eliminating the habitual criminal from society, and this will be a long step in advance.

In the meantime it behooves us all to lend our influence and efforts to

improve such conditions as may fall under our notice hoping and expecting the future to bring to us and to our descendants new light for guidance.

Discussion.

REV. MOODY: I certainly have been interested and helped by these papers, and I believe they are all most excellent papers in their line. I was especially interested in the paper by Mr. Franklin. I got a great deal of helpful information out of it. There was, however, one statement in that paper that I feel I must take issue with, in order to be true to my own convictions. This was the statement: "That the boys should be placed under the care of people who will take them to the theatre and base ball games." Now, I have not not any particular objection to the base ball game, but I certainly have a very strong and positive objection to the theatre as a proper influence for a boy whom we are trying to save from a life of crime, for I am sure that there is not a more demoralizing influence anywhere than the theatres of to-day. I don't know what kind of theatres they have in Austin, but I know the kind they have in Duluth, and I know that they are absolutely demoralizing and if there is a short road to hell for a young man or woman it is to take them to these abominable theatres, where the performance and the whole institution simply cater to the baser elements and where the suggestions which are thrown out demoralize them and sink them lower into the depths of infamy. Instead of placing them under the care of people who will take them to the theatre, they should be placed under the care of people who will teach them how abominable the theatre is and who, instead of taking them there, will keep them away and get them interested in things that will appeal to the better and higher instincts in their nature. I don't say this in any spirit of indignation against my brother. Of course, he has his own convictions, but I say this because my conscience would not let me say anything else.

REV. DAVID MORGAN, St. Paul, Superintendent of the Bethel: There are theatres and there are theatres, and I don't suppose we will ever agree on that subject. I never come to these meetings without a strong feeling that there is a great spirit of humanity and brotherhood working and trying to solve these problems. We have discovered, as Mr. Lies said this morning, that giving does not solve this problem of poverty. Now the question comes up, is poverty increasing or decreasing? I go and look up the statistics and find that it is increasing all the time; it is steadily increasing in spite of the effort which is being put forth, and the amount of money expended, and therefore the prime question is how can we prevent all this misery and this condition? Is there not something that we can do? In the last year there has been an increase in wages of three and one-half per cent, and an increase in the cost of living of four and a quarter percent, leaving the poor fellow worse off than the year before. We try to find the trouble. Some say it is the saloon. But they have no saloons in China, Japan or India, and yet they have abject poverty. I am down in the south. I have some time to wait at a small depot and I take a walk and come across two men working on the railroad. The one is the boss and the other is his assistant. I discover that the assistant gets \$1.25 per day. He has a wife and six children, there is no saloon in the place, he does not drink, but four months out of the year he has no work, and he therefore earns less than three hundred dollars. Now in these prosperous times, in this wonderful prosperity, how can this man keep his family? He is living in a miserable shanty, he pays \$2.00 for rent, he cannot afford any more. Now solve the problem if you can.

Brother Wilson spoke last night about his father being able to save money on a

salary of \$550 per year, but the fact of the matter is that the pastor in those days received so many donations that it cost them scarcely anything to live. I remember when I received a salary of \$348 per year but I really got more than \$1,000 if you could have reckoned all. This poor railroad laborer did not get anything like that. The serious problem is this, that the cost of living is increasing and the wages are not increasing in proportion. The average man produces ten per cent more than he did in 1903, and where is it going to? What is becoming of it? Mrs. Palmer says it takes \$80,000 a year to buy clothes for her, Mrs. Gould says it takes \$200,000 for her, and then you wonder what about it. There is the problem that we have to face, and we must not dodge it. Why is the saloon in the poor districts of the city? Why simply because these poor people have no chance, they are forced to live in these districts, and they must have some place to go, and so the saloon-keeper furnishes them a place because the church and the Christian people do not. Put a saloon in a good locality, and it would not pay for its lights even, because the people there have better wages and better homes. The saloon flourishes just where poverty nourishes.

THE CHAIRMAN: There is present one who has been a very earnest worker at our Conferences for years, and I would like to call on her for a few words on this very important work. Mrs. Higbee will you not say something?

MRS. C. G. HIGBEE, St. Paul, President State Federation of Women's Clubs: Among the able papers presented this morning, which have all been enjoyed and appreciated, was that very comprehensive and able paper upon personal service, the personal touch, to which I might add a few words; perhaps, being a woman, I might call it a P. S. to Mr. Lies' paper. Once I remember looking up the definition of "neighbor:" It is good that one of the dictionary compilers, in defining neighbor as "one whose abode is not far off, one living near another," etc., found inspiration at last to add "one of the human race." Neighbor, one of the human race; that gives us a comfortable sense of the breadth and value of life. One would certainly not be content to have one's neighbors, classified, as it were, by a similarity in surroundings or street or habits. One would have a real desire to know something of their lives, consequently to find out how the other half of the world lives; and if one does not do this just in so far as he himself the loser. If one has a desire to do something for his kind, there is perhaps no better method than to find his way to the house of a neighbor who has had everything to contend with, illness, losses of all kinds, hampered by poverty and without hope. But someone says "how shall I get in?" "How shall I get acquainted?" Well, remember that we are all very much the same at heart. We would make the first call, just as we would make a first call upon any of our friends. We would take our utmost delicacy and our very best manners as an introduction, perhaps we would speak of a mutual friend. We might just express a sincere wish to become a friend. We would make no excuse. We shall find this house standing forth crude, perhaps in the rough, but it will have a value of its own. Now, it may be that we may not tread the great pathways of human experience together, but are there not some byways of mutual understanding where we may meet and understand each other and walk together for a while, and each be the stronger for it? There is no true friendship when one person is always giving and the other always receiving. There must be something reciprocal about it, and we will not take for these first visits, at least, material gifts of any kind, but why not take something of our own wider plans and outlook as an exchange. One visitor chanced to mention, upon the occasion of her visit, that she was going to meet her husband and take a short journey with him. Returning a few weeks later she was surprised, on calling again, to have this friend inquire about the journey. She herself had forgotten about it, but to the poor friend whose life was not rich in events, this meant much, and she had thought as much about this journey as if it were her own. Is it not something to be so followed by a friend when on a vacation? It is difficult to establish such a friendship because it is so simple. We are not looking nowadays for the simple, the elementary, the fundamental, everything tends toward complications, and we sometimes fail to realize when it is stripped of all these outward terms, one of the real things—with-

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ure as she so richly deserves. It is not all to accumulate a fortune; it is more to live a life. The woman on the farm holds the key that will give us a country life that is worth while. If such a condition now exists in a farm home it is through her genius and planning. She deserves the encomium of a grateful state.

A desirable country life needs intelligent farming. It needs co-operation in distributing the products of the farm. It needs redirected and reorganized rural schools. It needs good roads, and a fuller and richer social and intellectual life. Even if these be secured, much hard work will still be the farmers' portion. We shall not soon, reach the condition of that farmer who had to build a gymnasium to give his hired man exercise.

FEEBLE-MINDEDNESS—ITS PREVENTION.

By Dr. A. C. Rogers, Superintendent State School for Feeble-Minded and Colony for Epileptics.

When a mother of a feeble-minded child has finally realized the distressing fact of its defect, her first anxious longing is for some means to help or cure its condition... The sub-conscious factor in her anxiety is her desire to be told the cause of her child's condition, and this is one of the first questions she asks upon seeking advice in its behalf. The almost universal question of the thoughtful visitor to an institution for the feeble-minded is: "What is the cause of all this?" The citizens of the state who cheerfully support the institution for the care and training of this class naturally and properly would know if there is to be a limit to its growth, and there is nothing in connection with the work itself that so appeals to those responsible for its conduct as the possibility of assisting to bring about a downward curve of the line representing the number of dependents and defectives.

An investigation of the case records of the institution at Fari-bault reveals an immense amount of information bearing upon the question of causation, but with it is considerable misinformation, and the amount of apparently correct information is still entirely inadequate for determining specific causes in a very large proportion of cases. For this reason it would seem presumptuous for the writer to propose a discussion of this subject before an intelligent audience like this, if this discussion was predicated only upon definite, well-defined laws that account for every case of mental defect, or even a very large number of them. On the other hand, there is a legitimate purpose in keeping two distinct facts before the public. First, that of the enormous amount of incapable and dependent humanity; and, second,

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that there must be causes for these conditions. Only thus can ways and means be provided for a thorough investigation of the data available.

Every mental defect is either congenital or acquired. In the latter case, the child may either, first, have sustained physical injury, especially about the head, from falls or blows, sufficient to interfere with the process of brain development; or, second it may have suffered from some disease of childhood, like scarlet fever, measles or meningitis. Twenty-five per cent of feeble-mindedness would, probably, be a liberal assignment to these acquired cases, of which 5 per cent would refer to the first class viz: to those who have sustained physical injury, and 20 per cent to those who have suffered from diseases of childhood. The 5 per cent contingent we would always have, with more or less variation as to the number. The 20 per cent contingent would decrease with the advance of preventative medicine

After eliminating the acquired cases, we find among the congenital cases a few due to parental causes. The great bulk, of course, are due to hereditary causes, so far but vaguely understood, but upon which investigators are throwing more and more light. Then there are a few cases, which we speak of as "sporadic," because there seems at present to be no evidence of hereditary taint nor parental depressants. Of course, a cause really exists that, if known, would explain such cases, and it is only by courtesy that the term "sporadic" is applied to this group. •

-Among parental influences venereal diseases seem to be very potent factors, though not apparently effecting a very large number of cases. Recently the blood of over 900 children in an institution for feeble-minded in Denmark was carefully subjected to the Wasserman test, with the result that only a little over 1 per cent gave positive reactions 'this is a field in which there is an opportunity to do positive scientific work that will be of great value. We know that there is a powerful anti-development influence exerted by this poison, as shown by sterility and still-birth associated with its known presence. (See chart.) It is quite probable that this is a factor in many cases where the blood would show no reaction through this specific test and there is a growing conviction that, while there are apparently but relatively few cases of arrested mental development from this cause, there are really many more than the evidence shows and that an examination of candidates for marriage should be made for evidences of such diseases, for the evidence of any such disease, either acquired or inherited, should be cause for interdicting the consummation of this relation.

As to other parental influences, the effect upon the development of the unborn child from accident to the mother, either of a physical or intensely emotional character, is not to be overlooked, but its value,

except in very rare cases, is uncertain and probably would not apply to exceed 5 per cent of the cases.

This brings us to the consideration of the hereditary factors. In this field, as indicated before, there is an immense amount of information, but it consists very largely, at the present time, of very little information about many people. It needs amplification—collateral and ancestral relationship should be studied and the data classified. There is also a large element of errors in the records at present on file, owing to the ignorance, or conscious or unconscious prejudice of the contributors. While there are perhaps few definite principles to be announced, there are a number of very strong "suspicions," which are growing stronger, as to the importance of some hereditary influences. As to the cases the writer has known most of personally, there are few whose families, so far as investigated, do not show ancestral or collateral cases of defect or neurosis. (See charts.) These charts, which can be multiplied almost indefinitely with variations, are graphic representations of certain evident conditions even from our imperfect data, and we believe that, if this data can be verified, amplified and extended, an astonishing amount of valuable information will be obtained, which will have definite value on the question of causation. The publication of the Mendelian law, to which the writer called the attention of this conference at its last meeting in St. Paul, and of which considerable has appeared in popular articles for two or three years, has stimulated new interest and studies in heredity—not only in plant and animal life generally, but in human heredity as well. From this law, as a working hypothesis for human heredity, new discoveries are being made, and facts long known are assuming new meaning. In some of the individual physical characteristics, like color of eyes, color and quality of hair, hereditary law has been worked out. Some diseases, such as Huntington's chorea and a number of the specific types, are known to be distinctly hereditary. (See chart.)

One of the suspicions referred to is that drugs, especially alcohol, have a much greater effect upon the germ protoplasm, therefore on parental and hereditary influence on progeny, than the superficial evidence indicates.

Our records show 16 per cent of cases in which the parents are or have been addicted to the use of alcohol as a beverage. Yet, notwithstanding the fact that there are often distinct neuroses discovered in these family lines, as the histories are extended and more ancestral and collateral branches investigated, the alcohol factor by this process grows larger also. This suspicion is in accord with the emphatic declaration of some European authorities, who attribute as high as 40 per cent of degeneracy directly to alcoholism, and a much higher percentage directly and indirectly to this factor. This whole subject, however, is receiving much thought and study, and we shall await the results of further research for more definite statements concerning it.

The American Breeders' Association has formed a department of eugenics, with some of our best known men on its committee—David Starr Jordan, Alexander Graham Bell, Charles R. Henderson and others.

Among other lines of investigation which it is planning and carrying on, it is urging the amplification and study of data already collected. Dr. Davenport, the secretary of this committee, speaking of the whole country, says:

"While the acquisition of new data is desirable, much can be done by studying the extant records of institutions. The amount of such data is enormous. They be hidden in records of our numerous charity organizations, our 42 institutions for the feeble-minded, our 115 schools and homes for the deaf and blind our 350 hospitals for the insane, our 1,200 refuge homes, our 1,300 prisons, our 1,500 hospitals and our 2,500 almshouses. Our great insurance companies and our college gymnasiums have tens of thousands of records of the characters of human blood lines. These records should be studied, their hereditary data sifted out and properly recorded on cards, and the cards sent to a central bureau for study, in order that data should be placed in their proper relations in the great strains of human protoplasm that are coursing through the country.

Thus could be learned not only the method of heredity of human characteristics, but we shall identify those lines which supply our families of great men: our Adamses, our Abbotts, our Beechers, our Blairs, and so on through the alphabet. We shall also learn whence come our 300,000 insane and feeble-minded, our 160,000 blind or deaf, the 2,000,000 that are annually cared for by our hospitals and homes, our 80,000 prisoners and the thousands of criminals that are not in prison, and our 100,000 paupers in almshouses and out. This 3 or 4 per cent of our population is a fearful drag on our civilization. * * * A new plague that rendered 4 per cent of our population, chiefly at the most productive age, not only incompetent, but a burden, costing \$100,000,000 yearly to support, would instantly attract universal attention, and millions would be forthcoming for its study, as they have been for the study of cancer. But we have become so used to crime, disease and degeneracy that we take them as necessary evils. That they were, in the world's ignorance, is granted. That they must remain so is denied."

Minnesota has the machinery for procuring data along this line, and that at a comparatively small expense. So much for the scientific attitude toward the question of good hereditary. The purposes of this brief discussion will have been served, if it shall awaken any interest in and support for research work along the lines suggested.

While I do not know very much about the scientific side of this question, when coming up in the train the other day, I happened to

look up at the ceiling of the car, the chair car, and I noticed a compass there. The thought occurred to me that here also is a use for the magnetic needle; the mariner uses it, the woodsman uses it in the woods, and the boy scouts use it in their maneuvers. Now here on a railroad train we can look at the needle and see the direction in which we are traveling: The needle always points to the magnetic pole, so that it makes no difference where we are on earth, we can determine from it the direction in which we are going.

In the study of sociological problems we come back to one thing than we are absolutely sure of, and that is that the home is the important thing, and if every member of the home does the very best that he or she can for the good of that home, and for every member in it, all of these problems would be largely solved.

In the meantime, we can all understand that no amount of knowledge will better the race unless self-control is recognized as the most important factor in human existence. So let us remember that "sober, quiet, industrious, temperate and righteous living is the "best known preventive of degeneracy, and he who does most to promote it is 'the greatest philanthropist.' "

EDUCATION FOR SERVICE.

Prof. Graham Taylor, D. D., Warden, Chicago Commons.

Shortly after coming to Chicago I went down in the neighborhood of Hull House to render some volunteer work. I was met there by a Russian Jew, who said to me, "I hear that you are coming down here to lend a hand." "Yes," I said, "I am." "Well," he said, "I hope you know that you owe it to us."

Well, that never quite occurred to me, but I assented, and he proceeded to bear that in upon my conscience in this fashion. He said: "You are a student—you need a building to study in. We build it for you. You need books, and we manufacture them. You need clothing, and my race has created the ready-made clothes trade." He was the victim of the sweat-shop system of Chicago, and he went on down the line making the appeal all the time that learning owed what it had to labor, but he summed up that appeal with this tremendous conclusion: He looked me square in the eyes and said: "But for the large number of us fellows on earth who work, who labor, and who do without culture, you, sir, would have no leisure to learn."

I never realized that my leisure to learn rolled up a debt to those who maybe had as much capacity for learning as I, but were all the time patient to labor while I had leisure to learn,

That, same tremendous obligation was borne in upon my family by another incident, when one of the members of my family circle went to Harvard university. A Jewish boy with whom he had been acquainted at the settlement wrote him that he hoped he would never forget that his education was costing a great deal more than he or his father would ever pay for it and then, in a kind of a passionate outburst, he said to this son of mine: "Return in glorious light the privileges which others are giving you."

I do not wonder that that college boy wrote home to his father, after that tremendous lesson in moral obligation, asking what he should do to pay his honest debt.

That is the way I learned that all education is an obligation to public service. There are students here from the state agricultural college. It is a college of the state. It is built and supported by taxation. Its walls are held together by the sweat of the farmer and the grime of the mechanic. Why have the people of this great state consented to be taxed to build that agricultural college, the University of Minnesota, the public schools and the high schools that are the centers of all the towns, villages and the wards of the city? Was it not to equip its sons and daughters in order that they might return the service as worthy citizens? Was it not that they should feel their obligation to promote the welfare of the commonwealth? He or she who takes that education for a private purpose, who thinks that this equipment can be used for self, and self only, who thinks that it is fair to get all he can and give as little back as possible is a downright, dishonest person. He has committed a breach of public trust. The teacher that builds herself up out of her school, instead of the school up out of herself; the lawyer who builds himself up out of his clients, instead of the client's interest up out of himself; the doctor who builds up his own reputation as a professional asset out of his patients, instead of the patients up out of his professional skill; the minister of the church members that try to make the community build a church up, instead of the church building up the community, have committed a breach of trust.

All education is an obligation to public service, and that is so for three reasons: 1. Because our very consciousness of self is a social product. We think of self first in terms of others, is what psychologists tell us, and even if we are not conscious of so doing, we are what we are very largely because of what others have made us. There are no self-made men and women. If there was extracted from you and me all that others have put into us, mother, father, brother, sister, playmate, workmate, neighbor and friends, what would there be left? Would we recognize ourselves if by some strange chemistry all that we owe to others were suddenly taken out of our makeup? Now, education in itself, in its development, is a social product. No