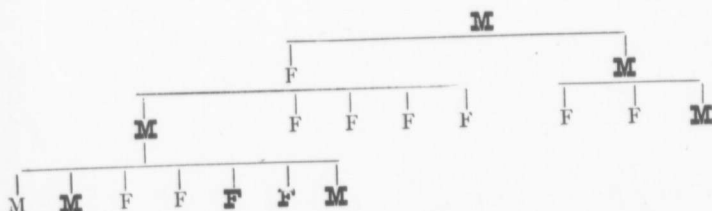


exhibited so strong a tendency to this affection that the males were affected in four generations, though the females did not entirely escape, as is shown in the subjoined family tree :



In neither of these families can it be said that the structural lesion itself is transmitted, but that the tendency or predisposition to produce it is inherited. The germ-plasm, therefore, in these individuals must have been so modified from the normal as to carry with it certain peculiarities, and to induce the particular disease which showed itself in each family.

In connection with the tendency to the transmissibility of either congenital malformations or diseases, consanguinity in the parents, though by no means a constant occurrence, is a factor which in many cases must be taken into consideration. If we could conceive both parents to be physiologically perfect, then it may be presumed that the offspring would be so also; but if there be a departure in one parent from the plane of physiological perfection, then it may safely be assumed that either the immediate offspring or a succeeding generation will display a corresponding departure in a greater or less degree. Should both parents be physiologically imperfect, we may expect the imperfections, if they are of a like nature, to be intensified in the children. It is in this respect, therefore, that the risk of consanguineous marriages arises, for no family can lay claim to physiological perfection.

When we speak of tendencies, susceptibilities, proclivities, or predisposition to the transmission of characters, whether they be normal or pathological, we employ terms which undoubtedly have a certain vagueness. We are as yet quite unable to recognize, by observation alone, in the germ-plasm any structural change which would enable us to say that a particular tendency or susceptibility will be manifested in an organism derived from it. We can only determine this by following out the life-history of the individual. Still, it is not the less true that these terms express a something of the importance of which we are all conscious. So far as Man is concerned, the evidence in favor of a tendency to the transmission of both structural and functional modifications which are either of dis-service, or positively injurious, or both, is quite as capable of proof as that for the transmission of characters which are likely to be of service. Hence, useless as well as useful characters may be selected and transmitted hereditarily.

*(To be concluded.)*