

hundred and seven; but it must be remembered that among those classes the ages are not nearly so well authenticated as among those who assure for substantial sums.

Taking into consideration the facts thus rapidly passed under review, it must, I think, be admitted that the natural limit of human existence is that assigned to it in the book of Ecclesiasticus, "The number of a man's days at the most are an hundred years" (chapter xviii, 9). In a very small number of cases this limit is exceeded, but only by a very few years. Mr. Thoms's investigations conclusively show that trustworthy evidence of one hundred and ten years having been reached is altogether absent.

Whatever number of years may be taken as representing the natural term of human life, whether threescore and ten or a century be regarded as such, we are confronted by the fact that only one fourth of our population attains the former age, and that only about fifteen in one hundred thousand become centenarians.

#### HOW TO ATTAIN A HAPPY OLD AGE.

A capability of attaining old age is very often handed down from one generation to another, and heredity is probably the most powerful factor in connection with longevity. A necessary condition of reaching advanced age is the possession of sound bodily organs, and such an endowment is eminently capable of transmission. Instances of longevity characterizing several generations are frequently brought to notice.

It is difficult to estimate the influence of other contingencies which affect longevity. With regard to sex, Hufeland's opinion was that women were more likely than men to become old, but that instances of extreme longevity were more frequent among men. This opinion is to some extent borne out by Dr. Humphrey's statistics: of his fifty-two centenarians, thirty-six were women. Marriage would appear to be conducive to longevity. A well-known French savant, Dr. Bertillon, states that a bachelor of twenty-five is not a better life than a married man of forty-

five, and he attributes the difference in favor of married people to the fact that they take more care of themselves, and lead more regular lives than those who have no such tie. It must, however, be remembered that the mere fact of marrying indicates superior vitality and vigor, and the ranks of the unmarried are largely filled by the physically unfit.

In Prof. Humphry's "Report on Aged Persons," containing an account of eight hundred and twenty-four individuals of both sexes, and between the ages of eighty and one hundred, it is stated that forty-eight per cent. were poor, forty-two per cent. were in comfortable circumstances, and only ten per cent. were described as being in affluent circumstances. Dr. Humphry points out that these ratios "must not be regarded as representing the relations of poverty and affluence to longevity, because, in the first place, the poor at all ages and in all districts bear a large proportion to the affluent; and, secondly, the returns are largely made from the lower and middle classes, and in many instances from the inmates of union workhouses, where a good number of aged people are found." It must also be noticed that the "past life-history" of these individuals showed that the greater proportion (fifty-five per cent) "had lived in comfortable circumstances," and that only thirty-five per cent. had been poor. In his work on "Human Longevity," Easton says, "It is not the rich or great... that become oid, but such as use much exercise, are exposed to the fresh air, and whose food is plain and moderate—as farmers, gardeners, fishermen, laborers, soldiers, and such men as perhaps never employed their thoughts on the means used to promote longevity."

Merely to enumerate the causes to which longevity has been attributed in attempting to account for individual cases would be a task of some magnitude; it will be sufficient to mention a few somewhat probable theories. Moderation in eating and drinking is often declared to be a cause of longevity, and the assertion is fully corroborated by Dr. Humphry's inquiries. Of his fifty-two centenarians, twelve were