

table as axioms. They are old, no doubt; to certain restless spirits they are therefore objectionable and "rubbish," to use our contemporary's phrase but what has been proved to be wisdom by the experience of the past will not be proved folly because it has the mark of age. Medical examinations have this brand and endorsement, which they will ever retain so long as life assurance selects standard or substandard risks by scientific tests.

#### The Census and the Death Rate.

The wide variations in the death rate of different cities are inexplicable on any other ground than the figures on which the calculations are based being incorrect. Is it credible that St. Paul, in a western State, has only a death rate of 9.7, Portland, Ore., only 9.5, or Seattle, Wash., 11.1? The drop in recent years in St. Paul leads the "Post" to remark:

"We shall next be asked to believe that the St. Paul figures will continue to decrease in the same proportion till posterity will have to kill somebody there in order to get any death-rate at all." If the death-rate in that city is correctly reported there should be a considerable increase of its population by persons flocking there to have their chances of dying materially decreased. Observations made of a large number of cities and of rural communities show that the average death is about 18 per 1,000, which will be found in accordance with the returns of English Registrar General. In those quarterly returns there are variations of 5 or 6 per cent., owing to temporary local conditions, such as an epidemic, but, if the returns are taken for a period of say five years, these variations are seen to be not so wide between different localities. "The American Census Bulletin" summarizes thus the mortality returns:

"The average age at death in 1890 was 31.1 years; in 1900 it was 35.2 years." Besides this, a reduction in the death-rate per thousand of from 21 to 18.6 was shown. A contributor to the "Evening Post" quotes the chief geographer of the Census as saying:

"In 1899 the death-rates of 136 of our largest cities were published. Of these cities, 23 claimed to have death-rates of less than 10 per 1,000; in 65 of them the rate was said to be between 10 and 15 per 1,000; in 43 of them between 15 and 20 per 1,000, and only 5 cities confessed to a rate exceeding 20 per 1,000. A death-rate below 18 in a large city is surprising, if much below it should arouse suspicion, while the publication of a death-rate below 10 is an insult to the intelligence of the public. Probably not one of the cities referred to had a death-rate of less than 18 per 1,000, although five-sixths of them reported below that figure. There are two methods of obtaining a low death-rate: one is to enumerate only a part of the deaths; the other, to estimate the population at too high a figure. When these methods are

used conjointly the result is remarkably effective." That the average age of the people at death in the United States has risen by 4 years since 1890 is incredible. This city has suffered from its death-rate being swollen by the high rate of infant mortality in the summer months, a factor which has no bearing whatever upon the healthfulness of the city. The city's death-rate has also been exaggerated, owing to a large number of deaths being included in its mortality returns of those who were not included in the city census returns. As a test of the healthfulness of a city the so-called "death-rate" is very unreliable owing to the uncertainty which exists as to the number of the population.

#### SOME POINTS ESTIMATING THE PROBABLE DURATION OF LIFE.

In a paper read by Dr. Nattress, the eminent Toronto physician and surgeon, he devotes the first section to the consideration of the inheritance of a constitution not strong enough to last out the allotted time, which he says is debatable ground.

The possibility of inheriting disease or the tendency to disease, is both affirmed and disputed. Parental transmission in its widest sense, that is, by any means whatsoever without implying any idea of pure heredity, can be readily accepted. For example, the tendency to drowning may naturally follow a sea-going family, to death by violence the soldier or the hunter, the tendency to lead poisoning in plumbers and painters, the tendency of stone masons to a special form of phthisis, or farm labourers to chronic rheumatism; or even the natural desire of the boy to emulate his father in his vicious as well as his virtuous habits. These are examples of transmission of geographical position, of occupation or of tendency of the child to follow in the footsteps of his father and in the strict sense of the term, have nothing to do with inheritance proper. Let us get a little closer. Let us eliminate all tendencies due to geographical position, to occupation, to education, or to imitation. Are we not still face to face with the fact that "like begets like"? In colour, the child resembles its parents; even in a mixture of races there is an artistic comingling of the tints in the child. In features there is the resemblance of the child either to one parent or the other. In character, a like tendency. We may go, further; even deformities are transmitted, for example—supernumery digits, hair-lip, cleft palate, same formation of eye-ball causing long or short sight, not to mention moles in the same place, or birth marks or peculiarities of gait, or modulations of voice, etc.

It is also generally admitted that a limited number of diseases are inherited.