a differently selected group. It is of twentysix members of the corps of the Northern transcontinental survey, — an organization of which I had charge, and the object of which was an economic survey of the north-western territories. It was a corps of men carefully selected as thoroughly trained in their respective departments of applied geology, topography, and chemistry, and having the physique and energy, as well as intelligence, needed to execute such a task in face of many obstacles. The average age of this group was thirty years. RAPHAEL PUMPELLY.

## MORTALITY EXPERIENCE OF THE CONNECTICUT MUTUAL LIFE-IN-SURANCE COMPANY.

THERE is a popular superstition, almost universal among our transatlantic cousins, and widely spread in our own country, that Americans are shortening their days by hard work, and inattention to the laws of healthy living. Our readers may remember, that, when Mr. Herbert Spencer first arrived in this country, he immediately began lecturing us on this subject. No surer test of this question can be found than that of mortality statistics, because those who insure their lives belong principally to the very class, who, according to the superstition, are most actively engaged in their own extermination. The tables recently published under the above title are therefore of great interest. The fulness of detail, and variety of form, in which the results are presented, facilitate their discussion. It therefore seems worth while to point out the most interesting results obtained. The fact thus brought out is, that at the very ages when mortality from over-work should most powerfully show itself, namely, from thirty to sixty, the American mortality is more than one-third less than the English, as shown by the combined experience table, and is constantly diminishing.

There are, however, reasons why we should not expect the death-rate shown by the experience of a life-insurance company to coincide with the rate amongst the community at large. Insured lives are not taken at random from the community, but form a select body. Only a limited class possess the foresight and interest in the future which would induce them to insure their lives. Out of that limited class, the insurance company selects only those whose viability is free from serious doubt. This selection, of course, tends to result in the insured class having better lives than the community at large. There is, however, a tendency in the opposite direction, which may be operative to a limited extent. A person who has reason to suspect his viability will have a stronger motive to get insured than one who does not. There is, however, no evidence that this cause has resulted in the lowering of the standard among the insured generally.

One result of the selection exercised by the company is obvious, and has frequently been pointed out by writers on the subject. Out of the class of men with good constitutions, the company selects only those who are, for the time being, in good health. With those who are going to die, symptoms of disease frequently appear weeks, months, or even years The probability of a before actual death. healthy person dying within the year following his examination by the life-insurance company is therefore less than the probability that he will die in the second year; and this, again, is still less than the probability that he will die in the third year. It has commonly been supposed that three years would have to elapse after the examination, before the probability reached its normal point. It is remarkable that the table now before us exhibits this effect in a much smaller degree than usual. The death-rate during the first two years of insurance is less by perhaps ten per cent than the During the third general rate at all ages. year it is actually less than during the second. Instead of attaining its maximum at the end of the third year, it continues to increase, and it does not reach the regular curve until the sixth year. It would seem that while the company gains a certain advantage during the first five years, through its privilege of selection, that advantage is far less during the first year than would have been supposed, and far less than common experience has hitherto shown it to be.

Another remarkable result, which we wish had been explained more fully, is the extraordinary death-rate among the younger class. This is more strongly shown among natives of the United States than among the insured at large. From the age of twenty-one to ninety, the death-rate follows the table of mortality very closely, but is uniformly from fifteen to twenty per-cent less than the tabular rate. But among native Americans, between the ages of seven and twenty, the rate is forty per cent greater than that given by the American table. The actual number of those who died was fortyseven, while the table gives only thirty-three deaths. The case is rendered yet more striking by the consideration that the mortality of the American table at the early ages is greater

than that of the combined experience table of the English companies. Above the age of thirty, the American mortality is decidedly less than the English, while at the earlier ages it is greater. The American table shows a maximum of advantage over the English experience about the age of fifty. The deaths at this age are about one in seventy-three by the American table, while the English table gives one death in sixty at this age. The experience before us greatly increases this discrepancy on the two sides of the Atlantic. At the age of fifty, the Connecticut company has only one death in ninety-three, against the numbers just stated for the English and American tables respectively. Perhaps the case is seen in the strongest light by remarking that the actual mortality at the ages from thirteen to twenty has been appreciably the same as at the ages from forty-six to fifty. Whether this extraordinary mortality is due to some special cause, is not clearly stated. If the lives which have been accepted by the company are representative ones of their class, it would seem that young Americans are subject to some extraordinary liability to death.

The insured are divided into forty-nine classes of occupations. It will perhaps sadden the reader to learn that travelling-agents, among whom book-agents are undoubtedly classed, seem to have the greatest viability of all. Taking them and lumber-men together, the death-rate is less than half that given by the tables. Dentists come third, and meet with the same fortunes as professors and teachers: for both classes the mortality is sixtenths that of the tables. How little mere occupation has to do with viability, is shown by the fact, that, while bankers and capitalists suffer one-fourth less, brokers, speculators, and operators suffer twelve per cent more than the tabular mortality. Officers of the navy, and of ocean and sailing vessels, have suffered the greatest comparative mortality of all, having died twice as fast as the general average of the insured. This is no doubt to be attributed to the civil war, which occurred during the time covered by the experience. Taking out this case as exceptional, the greatest mortality of all would be found amongst liquor refiners and dealers, bar-keepers, landlords, etc. This is quite in accord with general experience.

It is much to be desired that the mortality statistics of the census should be placed on a better basis. If the census office were to be made a permanent one, we might expect such a result to be attainable. S. NEWCOMB.

## AMERICAN FLASH LANGUAGE IN 1798.

THE cant or flash language, or thieves' jargon, was scarcely known, even by name, in the United States, until attention was drawn to it some forty years ago by the publication of Ainsworth's 'Rookwood' and 'Jack Sheppard,' followed by Dickens's 'Oliver Twist.' Even then it was regarded as a purely English product; and it was not until 1859 that Mr. G. W. Matsell, chief of police in New-York City, published a little work upon this dialect, showing that it had been to some extent transplanted to this side of the Atlantic. I am not aware that any mention has ever been made of the fact that there exists a full glossary of this thieves' jargon, as spoken nearly a century ago at the Castle in Boston harbor (now Fort Independence), which was used down to the year 1798 as a state penitentiary. The reason for this neglect lies, no doubt, in the fact that the book in which this glossary is given — 'The life and adventures of Henry Tufts ' (Dover, N.H., 1807) — is an exceedingly rare one, having been, it is said, suppressed by the author's sons. It is not to be found in any public library in Cambridge or Boston; and the only copy I have ever seen was picked up by myself at an old book-store, many years since, and was presented to the Worcester, Mass., city library. In a paper to be published elsewhere, I have given some account of this singular book; but this glossary of terms deserves a separate treatment as a contribution toward the history of the American speech. There is nothing more curious than the vitality of a class of words never employed in good society, and never admitted into any dictionary. While we all claim theoretically that vocabularies, and even academies, are necessary for the preservation of a language, we yet find in practice that these base-born brats, these children of thieves and outcasts, have a vitality of their own. The profane or indecent phrases which boys hear at school, and which they repeat with bated breath if at all - these same words were heard at school by their grandfathers, and have led a hardy and disreputable existence ever since; yet they remain unchanged, and time has not, as Sir Charles Pomander said of his broken statues, 'impaired their indelicacy.' Tufts's list does not, for a wonder, stray into the domain of impropriety, though the rest of his book does; but he gives many words that can be traced through other similar dictionaries, many that occur in his glossary alone, and others that are now familiar, and are commonly supposed to be recent. I have ret