the table of mortality used. Similarly, a *temporary* life annuity, at age 30, of £1 per annum for thirty years will be the sum of a series of endowments of £1, each payable at the end of one year, two years, and so on up to thirty years; and, again a *deferred* life annuity (deferred, say, thirty years) will be the sum of a series of endowments of £1 each payable at the end of thirty-one years, thirty-two years, and so on to the limit of the mortality table.

Now, taking an example of an opposite nature, a temporary insurance for one year is an insurance payable at the end of the year, *provided the life insured dies during the year.* We see that by the Hm Table, of 89,865 alive at 30, 694 will die during the first year, 706 during the second, and so on. Thus the single premium at 30 to provide the sum of £1 payable in case of death during the first year will be that fraction of £1 represented by $\frac{694}{89865}$, discounted for a year, and the single premium for £1 payable in case of death during the second year will be $\frac{706}{89865}$ discounted for two years, and so on to the limit of life; and a whole-life insurance of £1 at age 30 is the sum of a temporary insurance for one year, and a series of similar temporary insurances deferred one year, two years, and so on to the limit of the mortality table.

A little consideration will show that the most complitated policies on single lives are merely combinations of these simple ingredients in varying proportions.

VARIATIONS IN FIRE AREAS.

A comparison of the extent of the fires in different districts in any two periods reveals such wide variations as to render it impossible to formulate a law relating to the losses based upon geographical or topographical conditions. In the classification of the fires in the United States last month by States and Territories, given by "The Standard," we find the widest discrepancies in nearly all them between the experience of February, 1902, and 1903. Thus, in 1902, Connecticut had a fire loss of $1,715,000 and in 1903 of only $140,000; New Jersey in 1902 had a fire loss of $7,050,000 and in 1903, $190,000; New York, in 1902 a loss of $2,331,500 and 1903 $627,900. These large variations, showing reductions this year, were in the Eastern States, while in the Western States there were the following variations of a reverse rature showing largely increased losses his year. Illinois in 1902, $1,615,000 and $2,650,000 in 1903; Utah, in 1902, no loss and in 1903, $500,000; Oklahama, 1902, no loss and 1903, $300,000; Ohio, 1902, $1,001,000 and in 1903, $1,962,000; Nebraska, 1902, no loss and 1903, $200,000; Missouri, 1902, $153,500 and 1903, $355,000; Minnesota, $220,000 in 1902, and 300,000 in 1903; Michigan, $498,000 in 1902 and $611,500 in 1903. As a broad generalization, we might say, that in 1903, the high tide of losses receded away from the Eastern States and flowed out over the Western, no less than 11 Western States showing larger losses in February last than in February, 1902. It is also singular to find that in exactly one-half of the States and Territories of the Republic, the fire loss was larger in February last than in February, 1902. The reductions, however, in the one half were so much larger than the *increases* in the other half, as to result in a heavy decrease, which the "Standard" gives as $6,581,800 with a reduction in the small unclassified fires of $959,375. If policyholders could be universally induced to observe these variations in the areas wherein fires have occurred at different periods, variations that are so capricious as to defy all efforts to bring them under a general law, they would then realize that fire insurance is a business resting upon averages, and that rates wholly derived from local experiences in a restricted period, are a very uncertain basis for such an enterprise as that of a fire insurance company.

VALUATION OF SECURITIES.

"The proper mode of estimating the value of marketable securities and the figure at which they should appear in the company's balance sheet" was discussed by Mr. W. Hughes in his recent address as President of the Institute of Actuaries. He considers that, "to write down to the market quotations on the day of closing the accounts those securities which were purchased at a higher price, and, at the same time to retain at the purchase price those which have appreciated, may be defended on the score of safety, but it is obviously devoid of any other principle, and must result in course of time in seriously under-valuing the assets." That the valuation of the securities held by a company for the purpose of stating such valuation in a balance sheet should be regulated by and based upon some principle seems too obvious for argument, but it is not so obvious that the market price on the day of closing the accounts should be a hard and fast rule for valuing securities. Mr. Hughes refers to exceptional fluctuations in prices, such as happened on the last day of the last century, when market values were unusually and considerably lowered, as involving manifest inconvenience in the practice of writing down securities to the market quotations of the day on which accounts are made up. In illustration of this he quotes a paragraph from the Report of the House of Commons Committee on Savings Bank Funds, which reads:

"Although the law requires an annual valuation