as in the second method we would often be crediting or economically remunerating a man for obeying the law; a state of affairs not to be desired in any phase of human endeavor. The third method, that of the establishment and definition of an average plant as they are to-day, with debits and credits for sub and super standards respectively, is the method or procedure

Adopted by the Workmen's Compensation Service Bureau.

It has one distinct advantage, and that is, the basis rate will be more easily determinable under this plan than either of the two foregoing. The basis rate under the third method will more nearly approximate our present rates for workmen's compensation insurance as based on the law of average. The absence of dependable data, public or private, on this continent as to causes, frequency and severity of industrial accidents, will make it difficult to establish the basis rate under either of the two first methods.

I said the basis rate under the third method would more nearly approximate the present workmen's compensation rates (that is, of course, assuming that these rates are correct), and I think that statement is justified. This rate is, as we know, computed on the law of average or based on the cost of accidents over a wide area in the particular classification under consideration. Now I think we will all agree that a number of the industries embraced in that classification have been paying too large a share of the average in comparison to the number of accidents which have occurred in theirs and in other plants, and in comparison to the probable or anticipatory accidents which the physical and moral condition of their plants presents as against others. On the other hand it is equally true that many of them have been paying too little in the same comparison, and to equalize this injustice, merit rating steps in-not to annihilate the law of average on which all true insurance is based -but rather to amplify that law. I think, therefore, that we may now define a merit rate as "a rate on an individual plant, based on the basis rate of the classification to which the plant belongs, with debits and credits in direct ratio to the ratio of safety to probable or anticipatory accidents that particular plant presents compared to the average plant of to-day of the same classification."

NECESSITY OF INSPECTION.

We are, however, not so much interested in the phraseology or term of what we are going to do as are we, in how are we to do it. The question as to how we are going to measure the degree of safety in the individual plants in comparison to the average plant naturally presents itself first. How must it be done? The answer is simple-by inspection. The inspection is the crux of the entire problem, because here is where the expenses are incurred, and it is expenses that company managers are all endeavoring to keep down. However, this is an absolutely essential and necessary expense that must be incurred, and charged to the ultimate cost of workmen's compensation and other forms of liability insurance, whether this insurance is underwritten by stock companies or by other methods, and it is here hardly necessary to state that the stock companies, with their already existing organizations of experts and trained men, offer an advantage over other insurance carriers in this respect as in every other, so great as to be entirely beyond comparison.

Next we may ask, after we have gathered through inspection of the individual plants, the data requisite to prove whether a plant is above or below the established average, how are we going to measure the value on the different items in the schedule so constructed? Here, gentlemen, the answer is not so simple, because as previously stated, we have no dependable American data or statistics as to causes, frequency and severity of industrial accidents on which to base these values scientifically. There are very few American companies who have kept statistics on either of these three subjects under liability insurance. They were not essential to the conduct of that class of insurance, and therefore the companies were justified in not incurring the added expense of gathering them; an expense which would have increased the cost of their statistical departments considerably. They will, however, be essential under workmen's compensation insurance, and it may not be amiss to suggest (although I know the company managers have already given it attention) that the sooner all the companies agree on a uniform system of keeping statistics on these items, the sooner we will be able to use them in assigning the scientific and true value to any given cause.

WE ARE NOT ENTIRELY WITHOUT USEFUL DATA,

however. Several companies have kept statistics on these subjects, and we have tens of thousands of accidents classified under specific common causes, which undoubtedly will be placed at our disposal when affixing the values in our schedules, and besides we have volumes of European experience and statistics on the same subject; statistics, by the way, which are positively dependable. I take the liberty to state, and without fear of successful contradiction, that we have shown too great an aversion to the use of European statistics at all; that is, as far as the causes, frequency and severity of accidents is concerned. There is a way in which these statistics, and especially the German and Austrian, may be of great value to us for comparative purposes, and in which they may be quite safely utilized.

In an address delivered before the Actuarial Society of America at their annual convention in Toronto, Mr. A. H. Mowbray, a consulting actuary of San Francisco, Cal., outlined a plan, which I for one believe has a great deal of merit. I agree fully with him that if the German and Austrian statistics on these items are handled carefully by the underwriter, actuary and safety engineer co-ordinately, we will find their use of great benefit in the solution of our problems on this continent. Differences in amount of compensation, and all basic conditions bearing upon the cost of insurance must be taken care of in the basis rate, and simply the varying conditions in the individual plants, in the merit rate.

Another factor entering into the successful application of merit rating of compensation risks, and one with which we are going to have some trouble, is the segregation of payroll so as to determine the relative importance of a given cause, that is, the amount of payroll which is exposed to a specific cause in a particular plant; this you will appreciate will vary in practically every instance. For the present, however, we must be satisfied if we secure data on the approximate number of employees so exposed. To endeavor more refinement on that point at this time would be suicidal.