

and it wrecks parties and administrations if we find that the expenses are creeping up without producing results. In New York unless we get a more efficient Civil Service from top to bottom our expenses are soon going to be \$100,000,000 a year and I think anybody who looks into the thing sees that that is an inordinate sum for us to pay for the work we get and I believe that a fair analysis by any Bureau accustomed to do these things will show that there is an immense waste of money. The system has been built up very firmly and strongly in our State on this principle of ascertaining the qualifications for entrance into the Service by competitive examination, and we propose to maintain it; we are going to maintain it; it has never been maintained so strongly as to-day. The Governor has been a tower of strength to us. The present Commissioner went in there with some experience of the general proposition, and determined to put the thing right through to its ultimate.

In the long run we will not retain the public esteem for this qualification for entrance unless we can show with it a superior efficiency in the people we bring into the Service. In Washington last summer Mr. Brown, head of the Efficiency Bureau there, called attention to something rather enlightening in regard to the value of the Service. The point is this: I take two figures. We estimate one man at 100 for the quantity of his work and 100 for the quality of his work. We add those two together and we divide that, so if he is a 100 man in each respect his average is 100 per cent. Suppose we take another man and mark him 80 in quantity and 80 in quality. We add those two together, we divide the result and say that he is an 80 per cent man. 80 per cent and 100 per cent represents the relative values of these men to the State. The Efficiency Bureau in Washington has made very clear that we are there proceeding on a wrong basis. Let 100 in quantity and 100 in quality represent two sides of a square. The product of those two sides is 10,000 units. Take off 20 per cent of that and we have 80 per cent in quantity and take off 20 per cent on the other side and we have 80 per cent in quantity. Then our ordinary way of measuring would be to say that that is an 80 per cent man. But, multiplying 80 by 80, the two sides of the square, you get a product of 6,400 as the effective kind of work that man is doing. That is manifestly so because applying our 80 per cent to our 100 piece you cut off the 20 per cent in this corner to which I point and you must not give him credit for the amount of work he did that was not efficient or for the quantity of work that was not done. Therefore the work in the corner to which I point is lost entirely. That explains a thing which to everybody who looks at the eligible lists produced is remarkable; that is that the moment you begin to get away from the top of the list you run into very ineffective men and when you get to the 75 per cent people they bear no relation to the 100 per cent people. That is so because if you take marks of 75 per cent and 75 per cent and multiply them you produce only $56\frac{1}{4}$ per cent, and that is what is borne out in actual experience. When we get down to about where people just slip through they are very poor. I simply throw that out to show that there is an element in ascertaining character and capacity by the method of examination which we have got to think into somewhat further than merely this simple proposition of adding up a certain number of averages and saying that that man is of the average represented by those figures. You can see that if you had an automobile with poor tires, a poor engine, and poor springs, and it failed in a good many way, finally the result would be pretty nearly zero, although each one of the parts might be 80 per cent. That is what happens with people. Therefore I say that this is a most important question.