

Q.—There is a tendency towards shorter hours? A.—In some of the trades; in fact, some of the trades have adopted the shorter hours.

Q.—Do you know whether the employers of labor favor short hours or long hours? A.—Some favor short hours; the majority favor long hours.

Q.—Where an employer has a factory and machinery and steam power going would his expenses be reduced in proportion as the hours of labor were reduced? A.—Well, that would depend on whether his machinery is working the whole year or not. If his factory is idle for any portion of the time, owing to a surplus of the products, it would be an advantage I should think to work the shorter hours, so that the machinery might be kept in operation the whole year. Machinery deteriorates by lying idle.

Q.—It would be better to work the same number of hours stretching over a greater number of days than to work the same number of hours condensed into fewer days? A.—Yes. It would be better to work nine hours a day extending over the whole year than ten hours a day extending over a proportionate number of days.

Q.—Where a factory is worked the whole year the shorter the hours of labor the greater the comparative expense of running the machinery and factory? A.—Yes; of course that is true within limits. If you employ men very many hours they are apt to become weary and careless and accidents are liable to occur.

Q.—If a man is physically over-worked his productive ability is decreased? A.—Yes.

Q.—Have you ever made any study which would lead you to form an opinion as to the number of hours at which a workman could do his most effective work? A.—No, I cannot say that I have. I have observed this matter in regard to my own clerks. We have short hours, but the work is hard and wearing, and I find that late

in the afternoon they are much more liable to commit errors than they are earlier in the day when they are fresh.

Q.—They will do less work when they become fatigued and also poorer work? A.—Yes, and they are much more liable to commit errors.

By the CHAIRMAN :—

Q.—I suppose that refers to your clerks employed on statistics? A.—Yes.

By Mr. FREED :—

Q.—The same rules would govern all work requiring skill and attention? A.—Yes, all work that is a strain on the mind.

Q.—Of course as machinery is introduced productive power is increased? A.—Yes.

Q.—Are you able to form any opinion as to the percentage of increase in the productive power of labor within the last five or ten years in consequence of the introduction of machinery? A.—No. We can reach a conclusion more or less definite from the census of 1871, and of 1881. I think I have worked that out in one of the papers in my report.

Q.—That will be a very complicated calculation? A.—Yes, and one in which I would not put much confidence.

Q.—It cannot be more than approximate? A.—Certainly. At page 46 in my report you will find the following:—"The average rate of wages appears to have increased in the decade about five and one-third per cent, being \$13.15 per annum for each employé; while in efficiency of labor, as shown by comparison of the net products per hand, there was an apparent decrease of a little more than the half of one per cent., or \$3.23 per hand. But in reality what appears to be a decrease in the net product of labor was due to the high cost of raw materials relative to the value of the manufactured article—the increase in one case being at the rate of 40 per cent., and in the other of only 37.73 per cent. Had the value of the product increased at the same rate as the cost of the raw material the net product per hand would have been \$586.92 instead of \$564.96, and the difference between those figures may be taken as indicating approximately the increased efficiency of implements, processes and skilled labor during the decade."