

On a similar length of mules, and spinning 150's west counts from Sea Island cotton, combed, the mules were running three draws in 59 seconds and spinning from a 22-hank roving, and producing 340 lbs. per week, or 22.8 hanks per spindle. The spinner was earning £4 7s. 6d. per week, as against £1 17s. in Oldham if employed under similar conditions, and paid by the Oldham list and conditions. At another mill which I visited the mules contained 816 spindles each, or 68 dozens long, and they were spinning 135's counts with a $57\frac{1}{2}$ in. draw, and $3\frac{1}{2}$ in. of roller motion, and running 3 draws in 63 seconds, and producing 238 lbs. of yarn per week, or 19.7 hanks per spindle. The rovings were 22-hank, and made from Allan seed cotton with a staple of 17-16 in. long. The spinners were paid standing wages of £4 0s. 8d. per week, and the total wages paid on one pair of mules was £5 5s. 10d., and on similar conditions in an Oldham mill the wages would be £2 17s. 10d. The weekly production per pair of mules spinning 60's counts was 880 lbs., or 32.4 hanks per spindle; 95's counts, 410 lbs., or 23.9 hanks per spindle; 100's counts, 420 lbs., or 25.7 hanks per spindle.

The wages of ring spinners are given by Mr. Ashton as from 25s. to 35s. per week. He thinks that the American cotton operatives are better fed than the English, but not better clothed or better housed. Taking into account the extra cost of living, he thinks the American mule spinner has a net advantage in wages of 40 per cent. that he does not gamble or bet as much as the English spinner, that he is more temperate, and that the general conditions of his life, take them all round, are better.

Both Mr. Ashton and Mr. Wilkinson, the other commissioner, speak doubtfully about the Northrop loom, except where very good yarns are used. The smallest number of Northrops Mr. Wilkinson saw in charge of one weaver was 12, and the largest, 21. Their relatively slow speed (165 picks a minute) impressed him. The average weekly earnings of adult weavers at Fall River he puts at ten dollars (41s. 8d.), and of overlookers $13\frac{1}{2}$ dollars. Summing up, he says:—

"At all the mills which I visited the quality of the yarns was far superior to those used in this country, hence the weaver's ability to look after more looms. Give the Lancashire weaver the same conditions, and he will, in my opinion, equal, if not surpass, his American cousin. No doubt greater wages are earned in America than England, but when rents, clothing, and several other necessities of life are taken into account, I do not think the real gain is so great as it seems to a casual observer. The relation of female labor to male labor appears to bear much the same proportion in the American mills, as in the English mills."

He does not think that Americans work at a higher pressure than English, although they run more looms. The sanitation and ventilation of mills are, as a rule, not so good as in England; the work turned out is not better; the English weaver, according to Mr. Wilkinson, is as well fed, better clothed, and better housed than the American. earns less money, is 10 per cent. to 15 per cent. worse off after meeting necessary expenses, gambles more, has a longer working life, and does not die so young. As to the relative sobriety of English and American workmen, Mr. Wilkinson is one of the few delegates who does not give a verdict in favor of the Americans. He "cannot say."

Mr. Flynn, the tailors' representative, reports on the clothing question. He says, "clothing is as cheap in America as it is with us—that is, for those who buy inferior articles. The whole trend of opinion in America, however, is against cheap, sloppy suits. From three to six pounds per suit are

the prices usually paid. Nor, when the finish or stability, obtained at these prices is considered, together with the higher cost of labor, can it be fairly stated they are too high. At any rate, the American workman, owing in a larger measure, perhaps, to the practice of labelling trade union-made goods, is wholly against sweating, believing that if allowed in one industry, it will soon nibble at the roots of his own wages."

American workmen, according to this authority, certainly wear better clothing, but pay more for it. They are also better fed, lead sober lives, and do not gamble on horse races; but they are not so well housed in his opinion, as English workmen of the better class. American tailors' wages in factories are 100 per cent. more than in English factories, and with the best firms in New York and Chicago tailors can earn three times as much as with the best London firms. "Careful, sober, steady men can save more money than in England, and save it easier, without the pinch and scrape required here. The life of an American workman is superior to ours; nor do I think hard work shortens his life to the same extent as it does in England."

THE TEXTILE MANUFACTURER'S EDUCATION AND TRAINING.

At a recent meeting of the Yorkshire College Textile Society, says the Textile Journal, the question of the training of those intending to enter textile manufacturing was discussed at some length, and though the opinions of most of the speakers were in accord as to the need of a thoroughly theoretical and practical training, there was some difference of views as to whether an intending manufacturer should specialize or generalize.

We live in times when it is the custom to specialize, in order that the public may be led to believe that we are expert at our particular trade or profession, but this particular doctrine can hardly be said to apply to the individual aspiring to the successful conducting of a textile mill; for, when specialization is spoken of here, it is intended to refer to a certain branch of a textile trade, such as dyeing, designing, spinning, etc., and not to the whole trade itself.

A manufacturer should have sufficient knowledge of every branch of the class of trade he intends to devote himself to, so that he will be able to see that those whom he employs as heads in each department are doing their work correctly and satisfactorily. He should be able to point out any defect in any of the work done, and to know how such defect is caused. He should be in a position to judge both the quality and value of all raw material purchased, and be able to devote such material to such use as it is best fitted for. He should be conversant with the best methods of arranging and distributing the mill gear and machinery, and should understand the characteristic and capabilities of every machine in his mill and on the market. He should understand the working of engines and boilers, and the economy at his fingers' ends, and should also be conversant with the should be turned out of his mill in a given time, and should be able to give advice, or to pass judgment, on any process of manufacture, from start to finish. In addition to this knowledge, he should have the financial part of the business as his fingers' ends, and should also be conversant with the placing of his goods on the market, and the needs of his customers. In a small mill, the manufacturer would have to know all these things in order to conduct his business properly; but in large mills, where there are several partners,