

duction of the system would amount to 25,000,000 tons per annum, calculated on the output in 1906. Although the committee declined to accept this conclusion as put forward by witnesses engaged in the management of collieries, they admitted that some diminution in the quantity of coal raised to the surface would follow a statutory reduction in the number of working hours, whether introduced gradually or suddenly. But if it be assumed that the coalowners are correct, and that the effect would be a curtailment of the tonnage of coal to the extent indicated, the question arises as to what would have to be done under the circumstances. It would obviously be impossible for the country to be deprived of the use of such a considerable quantity of coal, and it would, therefore, either be necessary to prevail upon the miners to work harder or to procure a large supply of additional labour. The idea that the men would produce a greater tonnage of coal individually may be dismissed from consideration on the ground that the tendency in the coal trade, as in other industries, is to do less work and not more. It would consequently be essential to make a large addition to the ranks of the miners, and a simple computation shows that a fresh army of 85,000 men would be required to maintain the output of 25,000,000 tons, provided, of course, that the assumed reduction were to take place. If the wages of these men averaged 30s. weekly, the total annual expenditure would be increased by £6,630,000, and this would only form a portion of the extra financial burden which would be placed upon the general body of consumers by the enactment of a statutory eight hours day.

It will be recollected that the Departmental Committee reported that the average week at present worked is a week of 43 hours 13 minutes, which, spread over six days, gives an average of $7\frac{1}{4}$ hours per day, and they suggested that some improvement in the efficiency of labour would take place, especially in certain districts. But can it be seriously expected that men who already work less than eight hours daily would be induced to increase the duration of their labour to this number of hours? British coal miners are already the most industrious of all the coal winners in Europe at the present time. According to the statistical tables issued by the Board of Trade in relation to the production and consumption of coal, the quantity raised per person employed in the United Kingdom fluctuates year by year, but the tendency is not of an upward character. The maximum was apparently reached in 1888, when the average output per miner was 321 tons, and the minimum was in 1893, when the quantity was 247 tons. In 1906 the tonnage was 291 tons, but last year it receded to 284 tons per person employed, both underground and on the surface. If, however, the underground workers only are taken into consideration, it is found that the average production in 1907 amounted to 372 tons, being a decrease of 2 tons as compared with the preceding year. The movement in Germany has also taken a falling

curve, the miners producing on an average considerably less than in Great Britain. The French miners individually raise even a smaller tonnage than the Germans, whilst the Belgians occupy a still inferior position to their French colleagues. A period of twenty years in France and Belgium has not materially changed the tonnage output per miner employed, but the German miners have reduced their output by 21 tons in that term, and the British miners by no less than 34 tons since 1887. The miners in Great Britain only work for the purpose of obtaining a certain amount of money within a fixed period, and when they have once earned this particular sum they turn to their sporting and other pursuits for recreation. It is beyond human agency to interfere successfully with these habits, and if those of the men who work less than eight hours a day have their period of labour increased, it is probable they would not work at all on Saturdays, and this would naturally complicate the situation. At any rate, and even with the postponement of the eight-hours' day for a term of five years, it seems hopeless to expect that the useful efforts of the miners would be increased under a statutory limitation of the length of the working day. On the contrary, everything points to a heavy decline in the production, or the introduction of a new army of workers whose wages would have to be provided by the community in general.—*The Engineer*.

DUTCH HERRING FISHERIES.

That fishing has been one of the most important means of Holland's subsistence is natural, the country being bounded on two sides by the North Sea, and containing within itself the Zuider Zee, both waters always having been noted for their abundance of fish. Besides, all the towns surrounding small harbours along the North Sea coast are indebted solely to fisheries for their existence, being cut off by the sand dunes from the fertile soil of the country, and their harbours only capable of accommodating small fishing vessels. In spite of the long established trade in Dutch pickled herrings in the world's markets, the exports thereof to the United States are of comparatively recent date, for it is only within the last twenty years that the exports have assumed any noteworthy proportions, but the United States to-day stands next to Germany as the largest market for Dutch herrings. According to the American Consul at Schiedam, the export of pickled herrings from Holland to the United States for the year ended June 30, 1902, amounted to 131,518 barrels, valued at £153,000, while the export for the year ended June 30, 1907, amounted to 192,000 barrels, valued at £200,000. The herring is caught in the North Sea between Holland, England, Iceland, Norway and Denmark. In the beginning of the fishing season (the first part of June) the

boats go as far north as the sixty-first degree of latitude, in line with the Shetland Islands, where the best quality of herring is caught—the so-called “North-catch.” Gradually the herring moves southward, but even in the months of September and October successful fishing is carried on round the fifty-ninth degree. In November and the beginning of December the fishing is carried on along the English coast, near Lowestoft and Yarmouth, and even in the English Channel and along the coast of Holland, but the herring caught here is smaller and not so fat; this is called “South-catch” and “Shore-herring.” Lerwick, in the Shetland Islands, has long been used as a landing-place and wharf by the Dutch fishing fleet, and formerly the Dutch fishing firms established regular steamship connection between this place and Holland during the fishing season, in order to bring the herring as quickly as possible on the market. Since 1872, it has for some reason or other been impossible for all the different firms to agree on that point, and only a few of the largest firms are now sending their own steamers there to fetch the first herring catch. The other shipowners let their vessels unload their first catch of herrings at Lerwick in order to have it shipped from there to Holland on stray steamers *via* Leith or Harwich, as soon as possible. In old days it was not unusual to secure as much as £6 per barrel for the first herrings arriving in Holland, and even in 1906 from 30s. to £2 10s. per barrel was paid for 1,200 barrels of herrings which reach Holland *via* Leith in the middle of June. Shipowners, therefore, endeavour to get the first herrings quickly on the market. The pickling of the herring on all Dutch fishing-boats is done on board, as soon as the herring is on the deck. First, every herring is “gekaakt,” which means that a triangular piece is cut out of the neck of the herring with a knife, and the intestines removed. The herring is then packed with salt in barrels, and is ready for shipment as the necessary brine or pickle is forming in the barrel. This method is claimed by the Dutch to be much superior to the methods adopted by other fishermen, who salt the herrings whole on board, and have them cleaned only after they are brought on shore and partly pickled. All Dutch herrings are divided into “North-catch” and “South-catch” or “Shore-herring,” and as the North-catch herring is the largest and fattest, it furnishes the best qualities. It is claimed by the exporters that there is in the United States a market for the best qualities only, and that consequently only the best qualities are exported to that country. The two best qualities of herrings are—Prima full milters, and prima full herring. The first sort consists exclusively of the fat male herring, while the second grade consists of both males and females. In the year 1888, the fleet consisted of but 456 vessels, which had increased to 615 in 1898, and had reached the highest number on record in 1903, namely 777, of which 45 were steamboats. In 1907, only 756

vessels took part in the work, owing to the low prices of fish in that year. The number of men engaged in the fisheries have averaged 10,000 during the last five years. As far as can be ascertained, the catch in 1907 amounted to 794,242 barrels, but its value was less than that of 1906, as the average prices of the fish only reached £1 per barrel, while the average price in 1906 was £1 6s. 8d. The reason for the low prices in 1907 was partly ascribed to the rich catch of the English and Scotch fisheries. Besides, the Germans caught a great deal more in 1907 than formerly, which fact had a depressing effect on the Dutch market, as Germany is the largest purchaser of Dutch herrings. It is stated that there were stored in Holland on December 31st, 1907, 142,403 barrels of herrings, against 80,846 barrels on the same date in 1906. The so-called “Bokking” are salted without first being “gekaakt,” and smoked after they are brought on shore. This sort of herring is almost exclusively exported to Germany and Belgium. The herrings are disposed of at the so-called “afslag” auction sales, in the different fishing towns. The market price, however, is fixed, according to the price reached at the Vlaardingen “afslag,” as the sales held in other places are unimportant compared with those at Vlaardingen. Those sales are not public, inasmuch as it is only the firms and shipowners having “seats” who are allowed to buy and sell. The principals of the large export firms are, as a rule, directors in one or more shipowning concerns, and it is seldom that a man who is a shipowner but not a merchant, appears at the auction sale as seller. Large quantities of herrings are sold outside the “afslag,” but the Vlaardinger auction price is in such cases also adhered to. Commissions on sales generally range from one-half to one per cent. Herrings are bought without being seen but with the right of the buyer reserved to examine them later on, and if he finds reason therefore, he can refuse to accept them. The total export of pickled herrings in 1906 amounted to 202,912,457 pounds, of which Germany took about 150 million pounds, the United States 25 million, Belgium 15 million, Sweden 11 million, and Denmark one million pounds, all other countries accounting for less than one million pounds each.

THE WORLD'S FUR TRADE.

The fear has sometimes been expressed that the fur-bearing animals are becoming extinct, but the answer to that is that the fur trade is larger to-day than ever before. It is true that the buffalo no longer comes into consideration as a fur-bearing animal, and the beaver is also nearly extinct in most countries. The sea otter, which formerly furnished 100,000 furs annually, yields hardly 400, and the seal also seems to be rarer as the numbers of sealskins has decreased from 100,000 to 10,000 yearly, but other fur-bearing animals have taken the place of these, and the