

THE BRITISH NAVY.

From The Marine Review.

As a result of a recent discussion in Parliament, the British Admiralty was asked what was the total consumption of coal during the thirty-hours' trial of the "Powerful," how many boilers were used, and what was the average indicated horse power and speed maintained during the trial; and what number of vessels, other than the torpedo boats and destroyers, had been fitted, or were being fitted, with tubulous water boilers, with the aggregate indicated power of their engines; and if any and which of them had yet been tried on an over-sea voyage, and to what place? The answer was as follows: "The number of boilers in use on the thirty-hours' trial of the "Powerful" was forty-eight, the total consumption 453 17-20 tons, the average indicated horse-power 18,459, and the average speed 20.95 knots per hour. There are thirty-nine vessels in the navy, other than torpedo boats, destroyers, and small craft, fitted or being fitted with water-tube boilers. The aggregate horse-power of these vessels is 421,800. Of these the "Speedy" and "Sharpshooter" have been employed on service with the Channel Squadron, the "Speedy" since February 20, 1894, and the "Sharpshooter" from September 15, 1894, to May 6, 1895. It may be noted that the French man-of-war "Alger" recently returned from China after a three years' commission, and we have been informed there were no defects in her boilers, which were of the "Belleville" type, and that they worked satisfactorily during the whole commission.

GERMAN FOREIGN TRADE.

From Kuhlou.

The annual report issued by the Imperial Statistical Department shows that, as a whole, the foreign trade of Germany is growing steadily. Since the beginning of 1895, the value of the imports of the country has increased by more than 300,000,000 marks and of the exports by more than 200,000,000, a state of things which is attributed to the tariff and to the commercial policy initiated by Count Caprivi. The total imports during 1896 have increased by 11.9 per cent. and the total exports by 8.0 per cent. The value of the total imports has increased by 327,000,000 marks, or 7.7 per cent., and of the total exports by 207,000,000 marks, or 6.0 per cent.

The figures relating to the textile industry show a slight decrease compared with those for 1895, but an increase in most items compared with those of 1894. The value of the wool imports, raw and carded, amounted in round figures to 286,000,000 marks, against 291,000,000 marks in the previous year, while that of the cotton imports had receded from 231,000,000 to 217,000,000 marks, and that of the silk imports from 99,000,000 to 90,000,000 marks. The decline in these three articles, therefore, as compared with the previous year, amounts to 46,000,000 marks—a decline which naturally had its effect on the total imports for the year.

The export of completed manufactures in the textile industry also shows a slight decline. The value of the exports of woollen wares of every kind amounted to 215,000,000.94, against 221,000,000.83 marks in the previous year; that of cotton goods to 174,000,000.47, against 184,000,000.31 marks; that of satin goods to 105,000,000.16, against 111,000,000.12 marks. The three articles together therefore show a falling off to the extent of nearly 22,000,000 marks, following a year in which a rise to the extent of 69,000,000 marks had taken place.

GOLD AND SILVER PRODUCTION IN RUSSIA.

The gold production of Russia, as we have heretofore noted, says the *Engineering and Mining Journal*, is of very great importance, forming about 15 per cent. of the total supply of the world in recent years, and very largely exceeding that of any other country, with the exception of the United States, Australasia and the Transvaal. Usually it has been difficult to secure late returns, but we are now enabled, through our St. Petersburg correspondent, to give the correct figures as reported by the Imperial Mint. In theory these figures should represent the entire production, since the law requires all the gold produced to be deposited with the mint or one of its branches.

In practice this law is evaded to a certain extent, varying with locality. In the placers of the Trans-Baikal, especially in those near the Manchurian-Chinese frontier, the amount of gold stolen by miners or withheld by the finders is considered by the best authorities to be fully 20 per cent. of the total. In the districts which present fewer facilities to illicit gold buyers the proportion is lower, but an allowance of 10 per cent. on all gold deposited is a conservative one and is probably rather below the fact.

The production showed a very considerable gain in 1895, and that there was not a further increase in 1896 was due chiefly to the closing down of one of the great Siberian placers, which in 1895 yielded some 700 poods of gold, but was hardly worked at all in 1896. As it was, the decrease was a comparatively small one, amounting to 1,172 kilograms, or 2.5 per cent. only; while the total was considerably greater than that of any year prior to 1895.

The output of Russia presents one marked contrast to that of the other great gold producers; it is almost entirely derived from alluvial or placer workings. Quartz mining is carried on in the Oural region to some extent, but it is hardly known in Siberia. In all the Trans-Baikal and the Amour region, which is just now the most productive, there exists only a single stamp mill, with twenty stamps, and this mill, at the mine of Baian-Zourga, was not in use by recent accounts. Probably 90 per cent. of the gold is from placers, and the difference is shown when it is said that in the United States and Australasia the greater part of the gold is from deep mines, while in the Transvaal a placer is almost unknown.

SOURCES OF ENGLISH WEALTH.

From The Contemporary Review.

What we drink and what we wear loom largely in the lists of British wealth, but not what we eat. The business instincts of the people do not permit them to let any manufacturer of eatables become more than half a millionaire, and only two have reached that estate since 1887—Mr. Perrin, of sauce celebrity, and Mr. W. J. Belleville, a partner in Keen's mustard factory. Flour, bread, biscuits, tea and beef, on however huge a scale they may be manufactured or provided, lead, in the figures with which this article deals, to a lesser level of profit. The rich men of the liquor trade are many. Three of its four millionaires have been mentioned among the baronets; the fourth, Mr. Henry Page, was a maltster of Ware. Six others left estates valued at half a million to a million sterling. Lord Hindlip ranks amongst the Peers, and four others were brewers—Mr. Robert Courage, Mr. Richard Vaughan of Bath, Mr. W. H. Worthington of Burton-on-Trent, and another partner in the Allsopp firm, Mr. Henry Townshend.

PRIMITIVE RAILROADING.

From New York Times.

Sixty years ago the post of conductor of a railroad train was much more hazardous than it is now. There were no bellropes on passenger trains then, and no signalling communication between the trainmen and the engineer. Whenever it was desired to stop a train at an unusual place, the only way of accomplishing that end was for the conductor to climb to the roof of the car and run forward far enough to attract the engineer's attention, and call out or motion to him to stop.

Previous to the introduction of the telegraph along the lines of railway, the movement of trains was necessarily very slow, because all of the roads were single track and there was no means of signalling from point to point. Each train had to "feel its way." A train would run to a regular stopping place, and there it would wait on a siding until the train going in the opposite direction passed. Much delay was thus caused. Often the conductor of a waiting train would grow impatient, and would move his train on slowly toward the next station, sending one or more men on ahead to keep a lookout for the approaching train. This was called "running curves," and there are a few "old-timers" still in the employ of the Baltimore and Ohio and the New York Central who remember that primitive method.

For several years, when railroads were in their infancy, freight was carried on open platform cars. Such cars as first made did not

carry more than two or three tons. In wet weather, and when perishable goods were carried in hot weather, tarpaulin covers were used.

Although the famous locomotive engine, "John Bull"—made in England—was exhibited at the Chicago Exposition as the first steam railway engine in use in this country, three or four others of home manufacture were in operation here before the "John Bull" was built. Peter Cooper built a small locomotive engine which was tried on the Baltimore and Ohio line in 1830. It was not a success, but served to stimulate further efforts, and was speedily followed by a more practical motor, built by Phineas Davis. The first American locomotive built for actual service, however, was named the "Best Friend," and was used on the first few miles of track of the old South Carolina Railroad, built in 1830. This locomotive weighed about five tons. The South Carolina Railroad was the first railroad built in America for the use of steam power.

COMMERCIAL GEOGRAPHY.

From The Chautauquan.

Great cities are seldom pre-eminent for any particular line of manufactures. Their industries are too large and diversified for any one of them to show marked superiority over all the rest. Now and then a great industry of some city is taken from it. When ships were made of wood London was the greatest shipbuilding centre of the world. Then iron ships came into use and London has lost her shipbuilding trade, which has been transferred to the Clyde, the Tyne, and the Wear, right at the sources of iron and coal supplies.

The great vessels in which most ocean commerce is now carried have severely affected the interests of some ports. Cities that once were seaports are now inland as far as any great amount of ocean traffic is concerned. The largest ships of commerce could once sail up the Avon to Bristol, and the Severn to Gloucester. The far larger ships that now carry commerce cannot reach these places, but are compelled to stop at Avonmouth and Cardiff. Cargoes were formerly landed as far up the Thames as London Bridge, but steamers now have to stop at the docks, some miles below that point. Bremen was once one of the world's greatest commercial cities, but her water front is now too shallow for deep-sea vessels, and her port is at Bremerhaven, several miles below. Hamburg, accessible to all classes of vessels, though sixty miles from the sea, has reaped the benefit of Bremen's misfortune, which, however, has not deprived the latter city of a large carrying trade.

The making of a town or city may sometimes depend upon what seems at first a trivial circumstance. Silk weaving is confined to towns where the streams are particularly free from impurities. Some waters are better than others for silk dyeing, and this fact gives Leek, England, its pre-eminence, for its waters are among the best for dyeing purposes in Europe. Burton-on-Trent is famous for its ales. Its superior water for brewing purposes is its sole advantage.

SELLING HARDWARE.

From The British Hardware Trade Journal.

Goods for the gardens, though naturally claiming a first place at the present time, by no means exhaust the special opportunities of increasing business which are afforded by the present season. Take next the bicycles. We have become a cycling nation. Every one cycles, and there is no tradesman in the world who has a better, or, indeed, so good, a claim to the trade as the ironmongers. Cycles are a hardware line, if anything. A couple of years ago the proportion of ironmongers who sold bicycles was small. Now it is very large indeed, and we say there ought not to be a single hardware dealer in the country who is not a cycle agent and dealer. Then there are the sports goods to be attended to. In many towns the ironmonger has become the principal agent for the sale of cricket and tennis, croquet and golf goods, and other sporting appliances, and we urge those who have not yet undertaken this branch of business to make a new move at once. And by attending to these and the other special seasons' goods, as well as maintaining in every way the prominence of their staple lines, the hardware dealers will be enabled to make the present season one of the best—and probably the best—they have known.