

for the difference between the value of labor here and in some of the Continental countries is being reduced now—to our probable benefit. Australasia is again more prosperous than she was, and is likely to take more iron for railway and allied purposes from us in one form or other; and over the world generally, though the shipbuilding demand may be less, the demand for railway purposes shows signs of growth, though it may be that for some of the countries we may only receive the orders for iron and steel in their earlier stages of manufacture.

On the whole, we are not inclined to take a pessimistic view of the prospects of the iron trade, though undoubtedly the industry will need to have some alteration in costs to fit it to meet the change in the views of the buyers as regards price. In most countries there has been a very large circulation of money, and that circulation means fuller employment for steamships and for railways, larger constructive works and an increased consumption of pig iron. As the price is made more reasonable, the ultimate tendency is towards increased sales, and with the reduced stocks that there are now at the greatest of our producing centres, there will be in all probability for some time to come a large production, which will not be deterred by the fact that money is now cheaper and more plentiful than a month or two ago.

Blast Furnaces.—Of the 128 charcoal blast furnaces in the United States, 61, with a weekly capacity of 12,459 tons are in operation, and 67, capable of turning out 9,262 tons weekly, are out of blast. Of the anthracite furnaces, 102 with a weekly capacity of 41,952 are in blast, and 60, capacity 19,316 tons, are out of blast, and of 242 bituminous or coke furnaces, 143, producing 109,870 tons weekly, are in operation, and 99, with a product of 57,484 tons are out. Thus of a total of 532 furnaces of all kinds, with a weekly capacity of 250,343 tons, 306 producing 164,281 tons are in operation, and 226, capable of producing 86,062 tons, are out of blast.

Profits of American Iron and Steel Companies.—Whatever other particulars may be given to the world, the profits of manufacturers are with, very few exceptions, an unknown quantity. The subjoined table of the profits of certain American iron and steel companies have been compiled by a Mr. Dale, who guarantees their exactness:

FIRM.	CHIEF PRODUCT.	TURN-OVER.	PROFITS IN 1890.
		Tons.	\$
Pennsylvania Forge....	Muck iron..	8,000	24,000
Chess, Cook & Co.....	"	9,600	45,000
Clinton Mill.....	"	8,500	35,000
Pittsburgh Forge & Iron [Railway Works.....	supplies..	20,000	50,000
Elba Ironworks.....	Muck bars..	28,000	65,000
Keystone Mill.....	"	36,000	100,000
Millvale Mill.....	Ske'p, etc..	30,500	140,000
Republic Ironworks.....	Iron	64,500	175,000
Vesuvius Mill	"	42,000	100,000
Soho Mill	Iron & Steel	45,000	450,000
Sligo Mill	Iron plates.	31,500	100,000
Lindsay & McCutcheon..	Muck bars..	32,000	100,000
Painter, Sons & Co.....	"	77,000	200,000
Zug & Co.....	Iron	45,000	144,000
Lloyd, Sons & Co.....	Various iron	20,000	150,000
Solar Works.....	Iron & Steel	31,000	100,000
Brown & Co.....	"	29,000	300,000
Howe, Brown & Co.....	Steel	15,000	400,000
Shoenberger & Co.....	Iron & Steel	48,000	750,000
Singer Nimick & Co.....	"	28,000	500,000
Spang, Chalfant & Co....	Iron pipe..	37,700	800,000
A. M. Byers & Co.....	Pipe, etc..	40,000	900,000
Park Bros. & Co.....	Fine steel..	83,500	2,000,000
Oliver Iron & Steel Co..	Iron & Steel	100,000	1,500,000
Jones & Laughlins.....	"	120,000	2,400,000
Carnegie & Co.....	"	550,000	5,000,000
Linden Steelworks.....	Steel	20,000	400,000
Miller, Metcalfe & Parkin	"	15,000	500,000
La Belle Steel Mill.....	"	7,500	150,000
Spang Steel & Iron Wks..	"	30,000	600,000
Glendon Spike-works....	Spikes.....	25,000	125,000
Pittsburgh Tubeworks...	Tubes.....	15,000	450,000
Pennsylvania Tubeworks.	"	70,000	2,000,000

Allowing that these figures are even approximately correct, the prosperity of the American iron and steel manufacturers must be a cause of envy in other less fortunate producing centres.

Coal Output of Europe.—An interesting comparison of the output of coal in the last thirty-five years from the four great European producing countries of England, Prussia, France and Belgium, together with the number of men employed, and the number of tons raised per man, is afforded below:

Total and average annual per capita output of coal in different countries.

GREAT BRITAIN—				
	No. of men employed.	Tons of coal raised. 1 = 1,000	Tons raised per man employed.	
1855	242,719	67,711	278	
1860	275,847	84,042	305	
1865	315,451	99,720	316	
1870	350,894	114,681	326	
1875	535,845	135,439	252	
1880	484,933	149,320	308	
1885	520,632	161,901	311	
1889	503,735	176,916	314	

PRUSSIA—				
	No. of men employed.	Tons of coal raised. 1 = 1,000	Tons raised per man employed.	
1855	55,544	7,740	121	
1860	64,185	10,124	157	
1865	85,514	18,592	217	
1870	107,703	23,401	217	
1875	160,462	33,520	209	
1880	156,125	42,273	270	
1885	193,948	52,977	273	
1889	198,363	59,583	300	

FRANCE—				
	No. of men employed.	Tons of coal raised. 1 = 1,000	Tons raised per man employed.	
1855	54,322	7,453	137	
1860	59,240	8,304	140	
1865	78,735	11,600	147	
1870	85,357	13,330	156	
1875	108,921	16,957	155	
1880	107,236	19,367	185	
1885	101,616	19,511	192	
1889	104,932	22,952	198	

BELGIUM—				
	No. of men employed.	Tons of coal raised. 1 = 1,000	Tons raised per man employed.	
1860	81,675	10,957	128	
1865	82,368	11,840	144	
1870	91,993	12,697	138	
1875	110,720	15,011	135	
1880	102,930	16,866	163	
1885	103,095	17,437	169	
1889	103,477	19,205	185	

Improvements in Steam Hammers.—In Chemnitz, the great tool making center of Germany, there have been made some improvements in steam hammers that are worthy of notice, and in keeping with the tendencies of other steam machinery of our days. The hammers have two cylinders, and two piston heads of different area, that operate on the principle of a differential engine; the steam, acting first in the small cylinder to raise the hammer, is then exhausted into the large cylinder, to make the down or working stroke. Heretofore steam hammers have been wasteful machines, the steam being use without expansion, and the clearance in short strokes being lost. The differential plan seems a good one, if there are also arrangements to use initial steam both above the and below the piston when required.

The McKinley Tariff and the Sheffield Trade.—The quarterly returns compiled from official information, as to exports from the Sheffield district to the United States of America, prove that the cutlery manufacturers of that town have been very severely hit by the largely increased duties imposed by the McKinley Tariff Act. The total value of cutlery shipped from Sheffield during the last three months of 1890 was only £28,178, as compared with £74,970 in the previous quarter, and £62,350 in the corresponding quarter of 1889. These are comparative decreases of 62 and 45 per cent. respectively.

The Standard Oil Co, have now control, it is reported, of nearly every tank steamer carrying petroleum from the United States to Europe. With their recent purchases the company's fleet now includes 21 steamers of this class, having a total capacity of 24,435,000 gallons, or enough, it is claimed, to carry in 20 trips the entire year's exports.

The Canadian Mining and Mechanical Review.

PUBLISHED ON THE 25th OF EACH MONTH.

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