

of nine years, to ascertain, with certainty, the effect of the process on various substances. Specimens of English oak, English elm, and Dantzic fir, one of each prepared with the solution, and one of each unprepared, were placed in the fungus pit at Woolwich, on the 25th of August, 1836, and taken out on the 15th of July, 1841, when the prepared specimens were found to be perfectly sound, while the unprepared English oak had a spot of fungus on one end, the English elm decayed, and the Dantzic fir had fungus outside, and was decayed at heart. A quantity of Burnetized deals, with other pieces of the same wood unprepared, were put down in the damp cellar of a house in Chatham Dockyard, where the floors had been repeatedly destroyed by dry-rot, and where large fungi were growing in 1838, and in 1842 all the unprepared wood had become completely rotten, while the Burnetized portion was completely sound, and relaid with more unprepared deals for further experiment. Six pieces of canvas, and three of woolen cloth prepared, and the like samples unprepared, were placed in a hole four feet deep, in a damp situation, and exposed to the sun, where they remained six months; they were then taken up, washed in plain water, and dried, then placed in a deal box, and deposited in a damp sink, but not in contact with water; they were left in this situation nine weeks, and when examined, the prepared articles were perfect as ever, the unprepared perfectly rotten. These are a few of the experiments, and which are sufficient to show the nature of the process, and the powerful effects of the solution, which is now universally adopted in Her Majesty's dockyards, and is coming into very general use.

In confirmation of the reported good qualities of Sir William Burnett's process, we have had the following letter handed to us:—

*Tullamore, King's county, Ireland, July 10.*

I certify that I have made use of a large quantity of *domestic timber* (beech, elm, and Scotch fir,) in the repairs of my boats on the Grand Canal, which was prepared in Sir William Burnett's process three years since; most of it I find to be perfectly sound, which would not have been the case had it not been so prepared, as I have had repeatedly *Memel timber* decayed in less time in the same situation.

(Signed)

THOMAS BARRY.

Mining Journal.

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### *Working of English Railways.*

We copy from the "Civil Engineer and Architect's Journal," for September, 1843, a tabular statement, giving the particulars of the working of *twenty* English railways, for the first half of the year, 1843; this table will be found to contain statistics of a character useful to persons interested in such works, and we could wish that a similar degree of attention was more generally paid by the American railroad corporations, to their own statistics, for the reception of which, in a condensed form, our columns will be always open.

COM. PUB.

Tabular Statement of English Railways.

Tabular Statement for the half year, December 31, 1842, to June 30, 1843.

RAILWAYS.	Length in miles.	Total Expenditure.	Number of Passengers.	RECEIPTS.			PAYMENTS.					Profit.		
				Passengers.	Goods.	Total.	Locomotive Power.	Carriages.	Maintenan'ce of way, and Repairs.	Office Department.	Taxes and Rates.		Total Charges.	Interest.
Greenwich* . . . . .	58½	£1,030,108	705,304	£21,344	£	£26,587	£3,500	£3,490	£1,044	£1,551	£3,304	£13,957	£11,550	£1,080
Grand Junction,†	88½	2,375,134	132,976	49,652	185,093	30,298	29,691	12,675	4,591	2,954	80,320	104,772	9,008	
Manchester and Bolton,	10	777,936	139,408	11,571	6,293	17,811	1,095	3,110	732	268	5,956	5,282	14,490	
North Union,	22	613,212	17,731	6,793	25,337	1,466	2,142	1,471	1,236	1,082	7,597	3,249	14,490	
Chester and Birkenhead,	14½	509,810	11,491	1,298	13,307	2,110	2,382	1,089	237	172	3,990	2,525	2,837	
Leeds and Selby;‡	20	2,792,193	99,782	3,756	8,138	11,914	9,168	1,251	567	444	477	2,739	3,974	9,175
Brighton;§	56	723,424,766	65,487	9,002	74,490	18,150	18,150	4,980	3,414	3,003	49,827	43,974	44,854	
North Midland,	72½	3,424,766	56,581	46,263	102,814	10,267	13,922	9,012	1,400	2,659	36,760	21,200	10,875	
Northern and Eastern Counties;	324	897,055	31,833	3,693	35,547	6,702	6,945	2,033	895	20,324	5,695	10,875		
London and Birmingham;¶	112½	5,953,831	306,487	84,738	889,658	32,854	41,141	32,451	5,645	8,747	112,238	39,680	23,924	
Midland Counties,	57	1,725,693	40,421	21,064	62,322	10,780	9,498	7,105	3,883	1,378	32,144	12,813	17,367	
Great North of England,	74	1,230,504	19,754	13,225	32,979	2,830	3,497	3,700	1,844	1,184	12,355	14,202	7,001	
Sheffield and Rotherham,**	54	185,234	7,040	963	8,116	2,107	486	371	420	3,334	1,199	3,578		
Bolton and Preston,	14½	373,925	3,886	1,468	5,315	2,000	1,170	185	92	3,447	86,836	1,867		
Great Western;††	118¼	6,551,928	254,603	75,400	330,000	33,402	54,630	23,985	4,118	8,593	159,292	86,836	82,886	
Liverpool and Manchester,	51	1,578,601	60,752	48,217	108,960	10,893	12,780	4,440	2,193	3,608	48,121	3,777	3,777	
Blackwall,	3½	1,289,080	17,351	927	18,505	4,581	3,741	2,556	1,284	1,590	382	56,046	13,638	
Eastern Counties,	504	2,718,620	999,683	55,514	7,104	42,618	7,968	6,956	6,444	1,590	382	56,046	13,638	
Birmingham and Gloucester,	55	1,470,730	26,369	13,388	45,163	5,846	5,145	1,177	462	974	43,603	3,958	4,266	
York and North Midland,	27	673,056	165,627	26,369	13,388	45,163	5,846	5,145	1,177	462	974	43,603	3,958	

\* Greenwich Railway received for foot passengers £497, and toll £4,746. † Grand Junction paid Liverpool and Manchester Railway £8,016, and for rent £2,093. ‡ Leeds and Selby locomotive power is included in York and North Midland. § Brighton paid Croydon and Greenwich Railway for toll £11,109. || Northern and Eastern paid Eastern Counties Railway for toll £3,749. ¶ It should be observed that the office expenses cannot be separated. † London and Birmingham paid Aylesbury Railway for rent £1,250. In addition to the total outlay, there is the sum of £13,956 carried to the depreciation fund. \*\* Locomotive power not kept distinct. †† Great Western paid Bristol and Exeter, and Cheltenham Railway, for rent, £34,484. In addition to the outlay £5,900 is carried to the depreciation fund.