No. 1,538A.—“Results of the Working of a Steam Navvy at the West Hartlepool Docks.” By CHARLES AUGUSTUS HARRISON, M. Inst. C.E.

THE machine employed at these docks was one of Messrs. Ruston and Proctor's, and has been materially and successfully strengthened at all the points which proved weak in former machines of the same kind. It has never been stopped for repairs. Blank days are to be accounted for by the fact that the excavation was nearly completed, and consequently the engine had to be moved from one place to another. The earth also fell, and by blocking up the wagon roads prevented good results on several days. The wagons employed were 6 feet 9 inches long, 6 feet 9 inches wide, and 2 feet deep, having a capacity therefore of 3 cubic yards. The following table shows the results :—

HARTLEPOOL NEW DOCKS. WAGONS FILLED by STEAM NAVVY.

Date.	Number of Wagons.	Date.	Number of Wagons.	Date.	Number of Wagons.
1877		1877		1878	
November 15	50	December 20	170	January 22	183
„ 16	80	„ 21	138	„ 23	171
„ 17	52	„ 22	37	„ 24	183
„ 19	123	„ 24	18	„ 25	178
„ 20	54	„ 25	..	„ 26	117
„ 21	110	„ 26	33	„ 28	60
„ 22	..	„ 27	149	„ 29	167
„ 23	25	„ 28	170	„ 30	162
„ 24	36	„ 29	93	„ 31	143
„ 26	131	„ 31	111	February 1	161
„ 27	160			„ 2	60
„ 28	165	1878		„ 4	28
„ 29	96	January 1	15	„ 5	191
„ 30	18	„ 2	104	„ 6	240
December 1	..	„ 3	110	„ 7	220
„ 3	77	„ 4	..	„ 8	216
„ 4	156	„ 5	..	„ 9	62
„ 5	102	„ 7	..	„ 11	202
„ 6	53	„ 8	83	„ 12	161
„ 7	15	„ 9	111	„ 13	66
„ 8	61	„ 10	90	„ 14	83
„ 10	149	„ 11	140	„ 15	121
„ 11	153	„ 12	61	„ 16	80
„ 12	120	„ 14	124	„ 18	72
„ 13	110	„ 15	113		
„ 14	28	„ 16	152	Working	} 8,353
„ 15	..	„ 17	170	days, 74:	
„ 17	..	„ 18	210		
„ 18	117	„ 19	156		
„ 19	158	„ 21	169	Average, 112·8 wagons per day.	