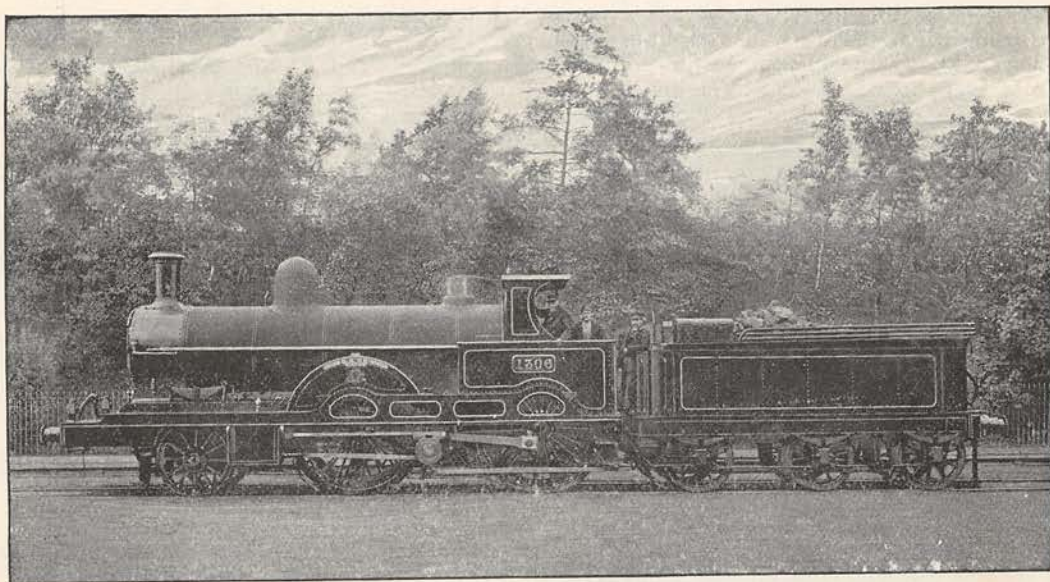
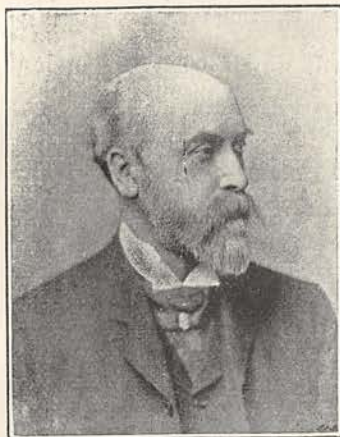


## RECENT RAILWAY RACING.

BY ALEXIS KRAUSSE.



L. & N. W. R. LOCOMOTIVE, "IONIC."  
(From a photograph supplied by Mr. F. W. Webb.)



MR. F. W. WEBB, LOCOMOTIVE SUPER-  
INTENDENT, L. & N. W. R.

(From a photograph by Van der Weyde,  
Regent Street, W.)

and Manchester Railway in 1825. But the Committee thought otherwise, and in the result the Bill was negatived, nor was it until a sum of £27,000 had been expended that Parliament consented to the construction of the line.

That George Stephenson's anticipations were more than warranted is a matter of

I HAVE no doubt but that a locomotive might be made to take the weight of forty tons at the rate of six miles an hour." Thus spoke George Stephenson before the Committee of the House of Commons appointed to examine the Bill for the construction of the Liverpool

history, but I doubt whether the most sanguine railway man of 1825 would have credited the achievements of seventy years later. During the infancy of the iron horse a speed of twenty miles an hour was regarded as good travelling, while anything over that was spoken of as "express." The accommodation was of the poorest, the fares were high, and the vibration extreme. To-day we take it as a matter of course when we are whirled 'cross country at sixty miles an hour. But the limit is not yet reached, and the records of running are, like promises and pie-crusts, made only to be broken.

Railway racing may be said to date from the year 1850, though competition such as we are now accustomed to was then unknown. The twenty-five years of experience which had been attained by railway engineers had taught them how to combine the elements of speed and safety; and though the requirements of comfort were scarcely recognised and rapid travelling was regarded as a luxury for the rich only, the best trains on the then established main lines were run at a speed which, all things considered, was creditable to all concerned. In this year the journey from London to Exeter was accomplished in four hours and a half. The distance covered by

the old broad-gauge from Paddington was 193½ miles, and the speed, including seven stops, 43 miles an hour. From Euston to Liverpool took five hours and three-quarters, London to Southampton two and a quarter, and London to Dover two and a half hours, these journeys being performed at an inclusive rate of thirty-five miles in the hour. But competition was at this time in its infancy. Half the existing lines were unbuilt, and the sporting instinct had not yet been imported into the railway world.

Till 1887 the fastest run in England was that made daily by the Great Northern Railway in its Edinburgh expresses. These trains, which left King's Cross morning and afternoon, ran to Grantham without stopping, and took one hour and fifty-seven minutes to cover the 105½ miles, the rate of speed being therefore 54 miles per hour. But this pace, marvellous though it undoubtedly is, was exceeded by the same trains further down the line, the run of 82½ miles from Grantham to York being regularly accomplished in one hour and twenty-eight minutes—a speed of over 56 miles an hour. These records were, as stated, the fastest made by any regular trains run in England, but they were approached, if not equalled, by the express running on the North-Western Railway, which, serving the same destinations, had every inducement to compete with the Great Northern Company. The Scotch train by the London and North-Western Railway ran from Euston to Crewe (158¼ miles) in three hours, and thence to Preston (51 miles) in fifty-eight minutes, the speed in both cases being 52¾, which was further improved between Preston and Carlisle (90 miles), the journey occupying only 103 minutes, equal to 54 miles an hour. I quote these figures at length, not only because they exhibit the fastest running accomplished nine years ago, but on account of their supplying the key-note to the marvellous accelerations which have since been accomplished.

The Great Northern and North-Western Railways practically share all the passenger traffic between London and the North. It is true that the Midland Company also runs trains to Glasgow, but their road is much longer, and passes over steeper gradients. The Edinburgh, Perth, and Aberdeen traffic is therefore worked exclusively by the two lines mentioned, though they neither of them touch Scottish soil. The North-Western Railway system extends, as is shown on the accompanying sketch map, from Euston to Carlisle, where a junction is effected with the Caledonian Railway, which runs to Aberdeen. The Great Northern line reaches only as far as a few miles beyond

Doncaster. Thence to Berwick the Scotch expresses traverse the North-Eastern Company's road, while the journey northwards from Berwick is on the system of the North British Railway Company. In order to make



SKETCH SHOWING STOPPING POINTS IN THE LAST RAILWAY RACE.

what follows clear, I append the rival routes and distances:—

West Coast.		East Coast.	
	miles.		miles.
L.N.W.R.	Euston ... ..	King's Cross ...	105½
	Crewe ... ..	Grantham ... ..	188
	Preston ... ..	York ... ..	268½
	Carlisle ... ..	York ... ..	339
	Carlisle ... ..	Newcastle ... ..	393
GALEDONIAN.	Edinburgh ... ..	Berwick ... ..	452½
	Stirling ... ..	Berwick ... ..	523½
	Perth ... ..	Edinburgh ... ..	
	Aberdeen ... ..	Dundee ... ..	
		N. BRIT. RAILWAY.	
		Aberdeen ... ..	

It will be seen from the above table that the Great Northern Railway has the shorter route to Aberdeen by sixteen miles, and that while its course is more direct than that of its rival, it takes in Edinburgh on its way to Aberdeen, while the North Western route passes from Carlisle to Aberdeen *via* Perth only, the connection to Edinburgh being by a separate branch *via* Carstairs, seven miles further than by the Great Northern Railway. The Great Northern route has also the advantage of easier gradients than its rival. But against these advantages, it is handicapped by having to send its trains over three

distinct systems of railway instead of two, a fact which involves frequent delays at the "frontier" stations, as well as being sometimes belated at one of several points where trains are compelled to slack, as in the case of the bridge at Huntingdon, etc.

Thus the position of affairs in 1887 was that the Great Northern Railway with its shorter route ran express trains between King's Cross and Edinburgh in nine hours, first and second class only, while the London and North Western Railway took ten hours over the longer route to the same place; but the West Coast Company carried third-class passengers in their ten-hour trains, and were therefore on a par with their rivals, as the fastest train carrying third-class passengers on the Great Northern Railway also took ten hours to Edinburgh. Thus the East Coast combination had the lion's share of the first and second-class traffic, while the West Coast practically enjoyed the monopoly of the third.

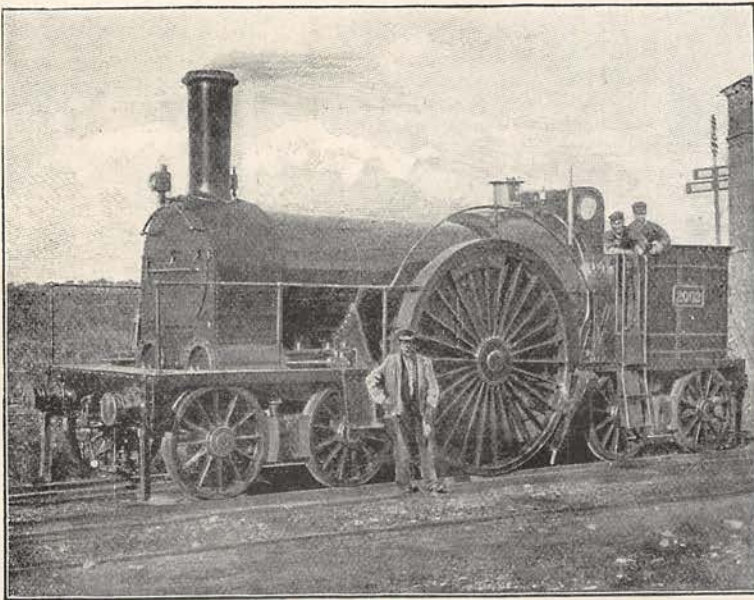
Such was the position of affairs when, in November, 1887, the Great Northern Company advertised that it would thenceforth carry third-class passengers in its Scotch express trains. This announcement did not attract much attention outside the travelling public, but it made it possible for third-class passengers to reach Edinburgh one hour sooner by the east coast route than by the west, and the London and North Western Railway soon found that their third-class traffic was decreasing. Accordingly that

company's officials laid their heads together and, in May, 1888, advertised that the day expresses would be accelerated and that Edinburgh should be reached in the same time as by the rival route—nine hours.

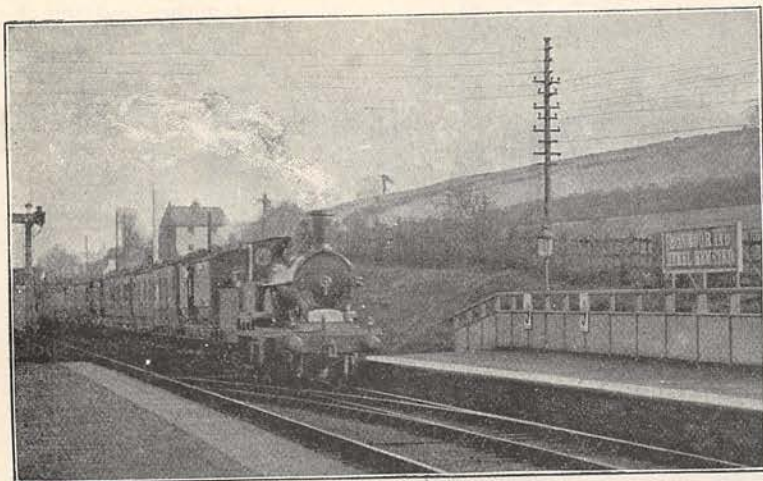
It is not necessary for us to follow seriatim the numerous changes made by the interested companies in the conducting of their Scotch traffic during the railway war of 1888. It will suffice if I give a brief *résumé* of the most salient points. The saving of a whole hour in the timing of the west coast express was not allowed to remain unanswered. The Great Northern Railway promptly reduced their journey to Edinburgh by half an hour, thus again heading the contest; but this advance, made on the 1st July, only staggered the London and North Western Railway folks for a brief interval. On the 27th of the same month the west coast people sprang a surprise on King's Cross by announcing that from the 1st August they would run to Edinburgh in eight and a half hours. But if it was thought that the short notice given would tie the hands of the east coast folks, the schemers were out of their reckoning. Within twenty-four hours the Great Northern Railway had made all the necessary arrangements, and posted huge bills announcing that the journey would be made in eight hours. This feat, which was carried out on August 1st without a hitch, attracted considerable public attention, and evoked some protest from nervous individuals who

measured the danger of travel by the speed attained. From this date the race to Edinburgh became the topic of the hour. The departures of the expresses from King's Cross and Euston were watched by crowds of spectators, as were also the progress of the trains at various points along the journey. Large sums of money changed hands over the times achieved, and the whole railway world watched the contest with breathless interest.

The Great Northern Railway had scarcely achieved the feat of running to Edinburgh in eight hours (at a running average of 54



AN EARLY RAILWAY "RACER." AN OLD 9-FT. WHEEL BRISTOL AND EXETER ENGINE.  
(From a photograph by H. Davey, Exeter.)



SNAPSHOT OF SCOTCH EXPRESS PASSING THROUGH BOXMOOR STATION.  
(From a photograph by Mr. A. Krausse, Great Missenden.)

miles an hour all the way), and thereby established their claim to the record run, than the London and North Western Railway made another bid for the blue ribbon. Finding that their compound engines made light work of climbing the Shap gradients at nearly 52 miles an hour, and that their partners, the Caledonian Company, were prepared to work with them loyally in any enterprise against the rival route, the managers startled the public by announcing that they, too, would run to Edinburgh in eight hours, despite having a longer route by seven miles. This acceleration came into force on the 6th August, and during the following week each company timed to run to Edinburgh in eight hours did its best to beat its own record. Thus, on the first day the west coast train saved fifteen minutes on the road, and on the seventh ran the ninety miles from Preston to Carlisle (over gradients of 920 feet) in eighty-nine minutes. But the east coast managers, despite triple management and frequent slacks, were also saving time, and on the 13th August announced that they would do the journey in seven and three-quarter hours. As both lines had already done it, there was nothing very marvellous in the announcement, but it is one thing to do a feat like this once and quite another to perform it regularly, and the advertisement announcing the reduction in the journey was received with astonishment and alarm by the public. It was on the 13th August that the climax of the struggle was reached. According to its time-table, the east coast was to run to Edinburgh in fifteen minutes less than the west, but it had seven miles less to traverse.

The Euston officials had made up their minds, however, that they must not be beaten. They put on their best engine, bade the driver rival time, and sent off their record train. In the result, Edinburgh was reached in seven hours and thirty-eight minutes, while the rival train was delayed by wind. But on the following day the east coast train covered the distance in six minutes less, and then it dawned upon the management of both lines that enough

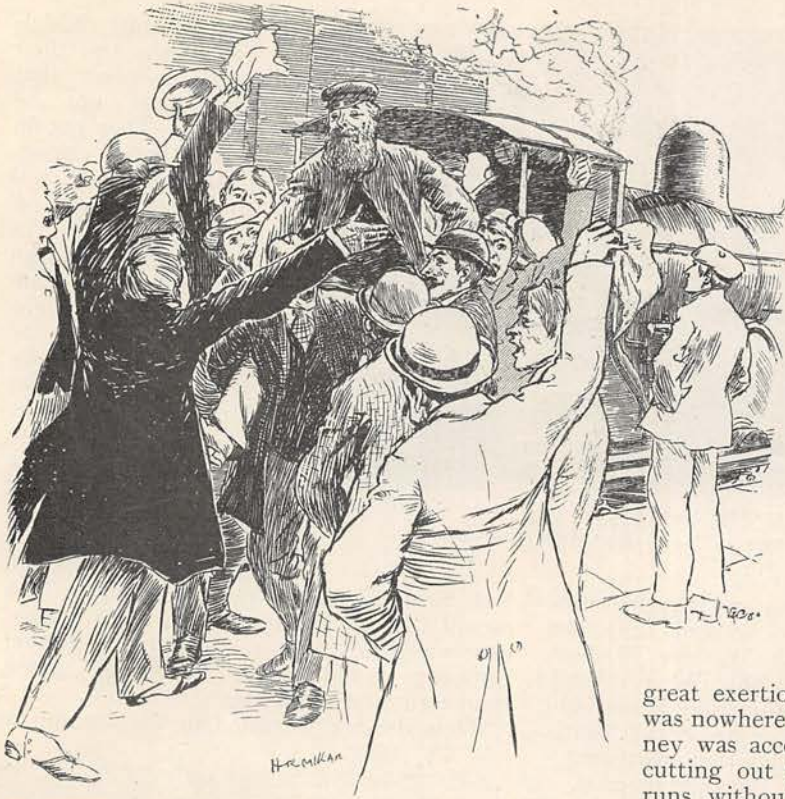
had been done for reputation, and by one accord the race was abandoned. A conference was held, and it was agreed that neither company should run to Edinburgh in less than eight and a half hours.

Thus the matter rested in the autumn of



DRIVER CROOKES AND HIS MATE ON ENGINE NO. 90, CALEDONIAN RAILWAY, WHICH TOOK THE WEST COAST TRAIN FROM CARLISLE TO PERTH, AUGUST 23.

(From a photograph by A. Brown & Co., Lanark.)



THE CROWD AT ABERDEEN CARRYING THE ENGINE-DRIVER OF THE WEST COAST TRAIN ON THE MORNING OF AUGUST 23.

1888, when it was possible to reach Edinburgh in eight and a half hours, or Aberdeen in fourteen (including fifty minutes stop at Perth for dinner). But in 1889 the Forth Bridge was opened, and the North British Company was for the first time enabled to run its trains through to Aberdeen by the new coast route from Edinburgh. But, though this gave the east coast an advantage of sixteen and a half miles over the west, it did not serve, owing to the compact as to the speed to Edinburgh. The west coast, on the other hand, were by no means slow to grasp their advantage. They put on a new morning express, which ran to Aberdeen in under thirteen hours, and expedited their Scotch traffic in every possible way. So matters went on until June last year, when the Caledonian Railway quickened its night train from Aberdeen, while the west coast combination started a new up train due at Euston at 7 a.m. This roused the east coast people, who realised that they had been "had" and that the understanding as to the eight and a half hours to Edinburgh was no longer binding on them. They promptly shook themselves

together, and from the 1st July the 8 p.m. from King's Cross was timed to reach Edinburgh in eight hours and fifteen minutes. This feat, if feat it can now be called, was punctually performed for fourteen days, during which the west coast sulked, but on the morning of the 15th Euston spoke out to the purpose and proclaimed, in letters a foot long, that the 8 p.m. train that night would reach Aberdeen at 7 a.m.—540 miles in eleven hours. The west coast thus ran the distance in twenty minutes less than its rivals, and this without any very

great exertion, inasmuch as the pace was nowhere exceptional. The journey was accomplished by means of cutting out stops and making long runs without slacking. The trains also were very light, consisting only of five carriages. Five stops were made on the journey, and it was found that the pace required was so easy that on the morning of the 17th the train ran into Aberdeen station thirty-nine minutes early.

After allowing the west coast to show what they could do for a week, the east coast management replied by timing their 8 p.m. train a quarter of an hour quicker than the North Western time-table. But at this point time-tables became a thing of the past. It was recognised that the struggle for supremacy would be fought out to the bitter end, and every run made by the west coast companies was made irrespective of official timing, the only object in view being to reach their destination as quickly as might be. On the principle that what has been done once can be easily done again, each day saw at least an attempt to improve on the day before, and thus it frequently happened that a west coast train would have left Crewe or Carlisle before it was timed to arrive there. The east coast combination, more regardful of red-tape, did not permit their trains to start before time was up. Thus matters rested from the 22nd to the 28th July, the west coast advertising the run in eleven hours, but actually performing

it in as little as ten hours and thirty-five minutes, while the east coast, running to time, only reached Aberdeen platform in ten hours and forty-five minutes.

On the 29th July the east coast, with a heavy train weighing 180 tons, reached Aberdeen at 6.20, after having spent thirty-one minutes at stations mostly waiting for time, but, had they not done this, they would still have lost the race, as the west coast train drew up at the platform at 6.5—a record which was beaten on the following day, when the North Western train, drawn by a Caledonian engine, reached Aberdeen at 5.59, one minute under ten hours.

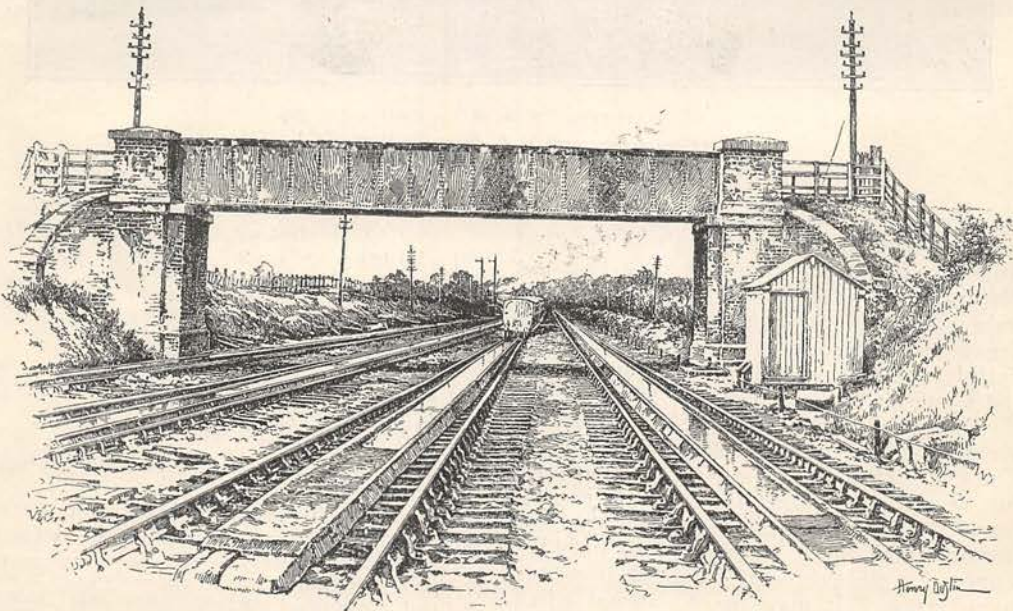
The climax of this contest was reached in the middle of August. It was then that, for the first time in railway history, a train had been booked to run at over a mile a minute. This record was first made by the North British Company which undertook to run the east coast train from York to Newcastle, 80½ miles in eighty minutes, including start and stop. But having once seen that it was possible to pass the mile a minute limit, the various companies interested vied with one another in keeping up that record, and in the result we have several runs by which the whole distance was accomplished at over a mile a minute, *stops included*.

During the week ending on the 23rd August every trip between London and Aberdeen was a race, and on almost every day the record of the day before was broken. The ten-hour performance of the east coast line

soon came to be forgotten in new feats of speed. At one stroke the three lines struck out *three-quarters of an hour* from their previous record and the journey was accomplished in nine and a quarter hours with a heavy train weighing over 100 tons. But the west coast people, who had long resolved that at whatever cost, and notwithstanding their sixteen miles longer line, they would eclipse their rivals, returned to the charge and accomplished the feat of running to Aberdeen at an inclusive speed of sixty miles an hour—540 miles in 538 minutes, including four stops.

The contest was now keen indeed, but the end was yet to come. On August 21st the east coast train improved on this by eighteen minutes. The train left King's Cross at eight punctually and made sixty miles an hour up all gradients to Grantham (105 miles) which was reached in 101 minutes. Thence to York (eighty-two and a half) occupied only one hour and sixteen minutes, a speed of sixty-five and one-third miles an hour. The section from York to Newcastle was only run at sixty miles, but thence to Edinburgh the train was carried by one of Worsdell's new engines over the 124½ miles in 112 minutes, a record of 393 miles in all, with three stops, in 379 minutes. The journey from Edinburgh to Aberdeen was for the most part done at over sixty miles an hour, the goal being reached at 4.40, eight hours and forty minutes from London, being five and a half minutes better than sixty miles an hour all the way.

With this brilliant record the race ended.



RAMSBOTTOM'S "PICK-UP" WATER TROUGH FOR THE NORTH-WESTERN LINE BETWEEN CREWE AND STAFFORD.

The North British and North Eastern Companies represented to their co-partner, the Great Northern, that enough had been done for reputation, and the strain of working at such high pressure, as well as the delay caused to the other traffic on these lines by keeping the line clear, made such feats a costly business, and in accordance with this view the east coast combination abandoned the race and returned to the very highly creditable performance of a month before.

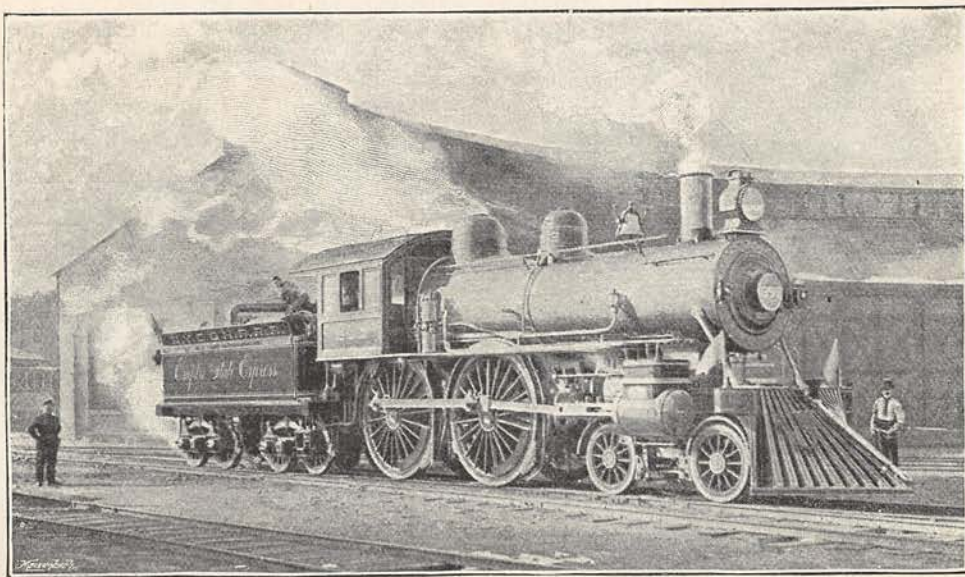
But the west coast companies were not going to remain beaten, and they accordingly decided to give an "Exhibition" run just to

EAST COAST RECORD, AUG. 21-22, 1895.

		Distance.	8. o p.m.	Speed.
G. N. R.	King's Cross.		8. o p.m.	
	Grantham ... 105	{ 9.41	}	... 62 $\frac{3}{4}$
		{ 9.45		
	York ... 83	{ 11. 1	}	... 65 $\frac{1}{4}$
		{ 11. 5		
N. E. R.	Newcastle ... 80 $\frac{1}{2}$	{ 12.25	}	... 60 $\frac{3}{4}$
		{ 12.27		
N. B.	Edinburgh ... 124	{ 2.19 a.m.	}	... 66 $\frac{1}{6}$
		{ 2.21		
N. B.	Dunbar ... 59	{ 3.20	}	... 60 $\frac{1}{4}$
		{ 3.22		
	Aberdeen ... 71	{ 4.40	}	... 56 $\frac{1}{4}$
		{ ...		

\*523 $\frac{1}{2}$

Weight, 105 tons; average speed, 60 $\frac{1}{2}$  miles.



A TRANSATLANTIC "RACER" — ENGINE NO. 999.  
(From a photograph by F. Moore, Finsbury, E.C.)

show that they could "go one better." The trip in question was made on the night of the 22nd August. The train consisted of a brake, a sleeping car, and a composite carriage. The train left Euston at eight o'clock and ran to Crewe at a speed of sixty-four. Thence to Carlisle, the best record speed of sixty-seven and a quarter was reached, and from Carlisle to Perth, over the heaviest gradients, an average of sixty and four-fifths was recorded. The final stretch from Perth to Aberdeen was run at sixty-six three-fifths, and the journey completed at an average speed of sixty-three and one-third miles an hour, stops included. I append a table showing details of these two record runs. It may be of interest when, as is most possible, the companies involved compete once more.

WEST COAST RECORD, AUG. 22-23, 1895.

		Distance.	8. o p.m.	Speed.
L. N. W. R.	Euston.		8. o p.m.	
	Crewe ... 158	{ 10.28	}	... 64
		{ 10.30		
	Carlisle ... 141	{ 12.36 a.m.	}	... 67 $\frac{1}{4}$
		{ 12.38		
GAL.	Perth ... 150	{ 3. 7	}	... 60 $\frac{3}{4}$
		{ 3. 9		
	Aberdeen ... 89	{ 4.32	}	... 66 $\frac{3}{4}$
		{ ...		

\*539

Weight of train, 70 tons; average speed, 63 $\frac{3}{5}$  miles.

In considering the value of these records, it must be borne in mind that the east coast

\* These distances are as near as they can be stated without going into fractions. The exact measurements of the whole distance are—West Coast, 539 $\frac{1}{2}$  East Coast, 523 $\frac{1}{2}$ .

trains were invariably regular ones, well laden with passengers and run to schedule time.

In the case of the west coast performances the records were attained by specially light trains, which were not run to scheduled time but placed in charge of experienced men, who received no single check and kept all time they made by getting away from stations with the least possible delay.

On the 11th September, 1895, the New York Central Railway ran a train (drawn by engine No. 999) from New York to Buffalo, a distance of  $436\frac{1}{2}$  miles in 414 minutes 27 seconds, the speed being placed at 64.35 miles per hour, while on the 25th of the same month the same American Company claim to have run their newspaper train from Albany to Syracuse, a distance of 148 miles in 130 minutes, or at the rate of 68.31 miles an hour. Yet more recently the Lake Shore and Michigan Southern Railway ran a train, on the 24th October last year, from Erie to Buffalo, a distance of 86 miles, at an average speed of 72 miles, the timing over one section of the line showing that the train travelled for 8 miles at a speed of 97.2 miles an hour. Presuming these data to be reliable, this record is the best yet attained.

The North-Western Company have recently been making some experiments in the direction of long runs. This company has for years past performed the longest run in the world—that between Euston and Crewe

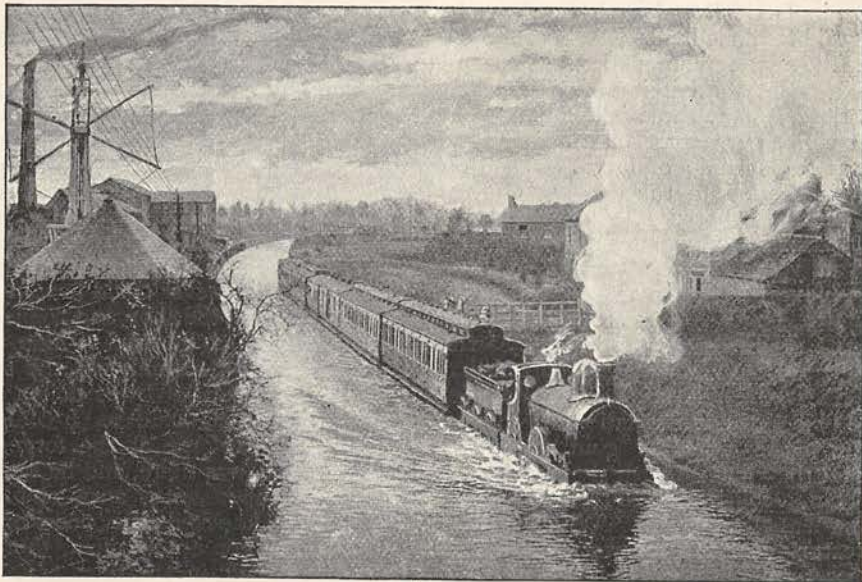
(158 miles) without a stop; but on the 8th of September last it ran one of its small compound engines, the "Ionic," from Euston to Carlisle ( $299\frac{1}{4}$  miles) without stopping, six hours being allowed for the journey, which was completed well within time.

I should have liked to add some of the incidents of the races I have attempted to describe, but am prevented from doing so through the exigencies of space. I have, however, said enough to account for some of the recent records, which, marvellous though they may appear, are undoubtedly destined to be broken ere long. For the present I content myself with giving a reproduction of a photograph taken of a Great Western express train pushing its way through a flood at Creech. The illustration will serve to give an idea of the adventures which occasionally befall railway racers.



MR. WILSON WORSDELL, LOCOMOTIVE SUPERINTENDENT, N. E. R.

(From a photograph by R. E. Riddock, Newcastle-on-Tyne.)



GREAT WESTERN EXPRESS IN THE FLOOD AT CREECH.

(From a photograph by A. G. Petherick, Taunton.)