

Richard Osborne at Limerick

by K.A. Murray

Some years ago I became aware that in the great and expanding collection of manuscripts in our National Library there are eight small books which are described in Richard Hayes's catalogue as "7888-7895. Diary of Richard Boyse Osborne, engineer, during the period 1834-1856, spent mostly in Canada, the United States of America, and Panama. With some account of the families of Boyse and Carr, his immediate ancestors, and a more detailed account of his journey from New Ross to New York".

A look at No. 7891 showed that the writer of it superintended the building of a line of railway over which many of us frequently travel - the Limerick-Tipperary section of the late Waterford & Limerick Railway, now a part of CIE, and that he has entered into much detail about that part of his career, so that a transcription of it, with a few comments and elucidations, may form a unique contribution to our railway history.

The name of Richard Boyse Osborne is, probably, unknown to most members of the Irish Railway Record Society but he was evidently an interesting character. He might fairly be described as Anglo-Irish-American. His family, originally English, were long settled in Ireland, but Osborne always regarded himself as an Irishman, although he was a good citizen of the U.S.A., where he did most of his life's work.

His father collected a number of documents about the family, and added to them a pedigree showing relationships with various important families. Although this was almost entirely imaginary, Richard appears to have given great credit to it, and at every opportunity would talk, to listeners interested or not interested, about his Irish connections and their estates - but this is a common and harmless trait of people who, American, can boast of Irish blood.

Osborne senior was a barrister, but did little at his profession; an erratic character, and not improved by head injuries received in an accident. He seems to have had some property in Ireland, but lost most of it in lawsuits, and led a restless sort of life. About 1830 he and his wife separated, and he spent his time in endeavours to find her and get hold of her small fortune, which she needed to bring up her children.

Of her family two sons survived, Richard Boyse and John Humfrey, Richard was born in London in 1815, but spent a good part of his early life in Ireland, where his relatives the Boyeses and Carrs were long established. From his 8th to 10th years he was at a school in Bannow, Co. Wexford, conducted by William James, and then was taken to Bath, where he attended the Bathampton Academy; then again to Ireland, to Dr. Graham's "Trinity College School" in Waterford, a well-regarded institution which prepared boys for entrance to Dublin University. Here he studied surveying, draughtsmanship, etc., in the manner in which in those days a young man would be fitted for the profession of engineering. His brother John was also educated as an engineer.

Trouble having arisen over his mother's marriage settlement, she had difficulty in keeping her husband from seizing her small capital. Richard, who was very devoted to his mother, seems to have been especially pressed by his father, perhaps with a view to obtaining

some of the family monies. Things got so bad that Richard decided to leave Ireland, and with help from some relatives he sailed for Canada in 1834 at the age of 19 years. He was soon connected with a company which was "settling" new lands and building farms and towns. Before long, however, he went to the U.S.A., where, after a short period as a teacher of mathematics and drawing in Michigan, he was recommended by a friend to an engagement with the Philadelphia & Reading Railroad, then being built to Pottsville. His brother John had followed him to America in 1839.

That Richard soon made his mark is shown by the fact that he was in 1842 appointed the P&RRR's Chief Engineer - a promotion very reasonable from his employers' point of view, however. He now had a lot to do, in overlooking new construction and designing bridges for a company which was, even at that early date, an important one in America. As the pressure slackened, however, he began to think of a visit to Europe. For this there were two reasons. He had become friendly with Howe, inventor of the Howe Truss, a form of bridge girder much used in America, generally of timber; but Osborne had one made of iron which drew attention and was to serve half a century under P&RRR trains. Howe being naturally anxious to extend the use of his invention, and Osborne equally willing to assist the vogue of a design he regarded as good, Europe offered itself as a field of endeavour, and it was settled that Osborne should make the approach to the conservative engineers of the Old World.

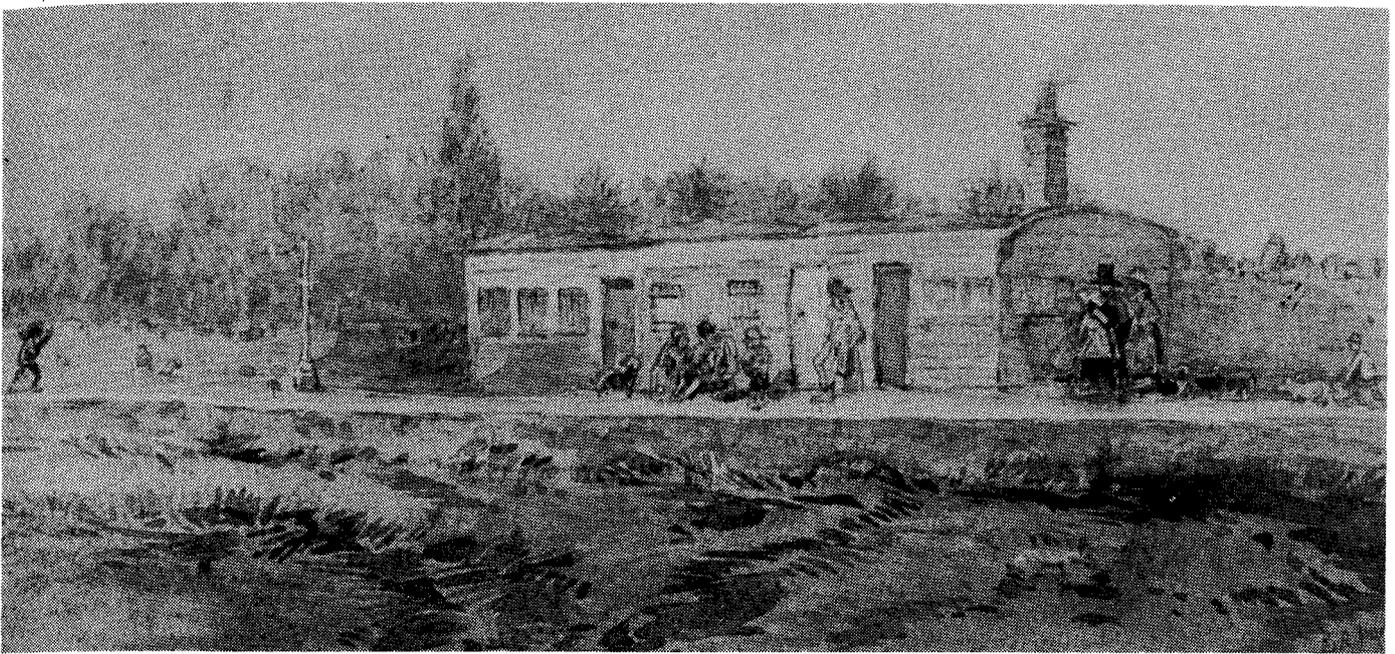
Richard's other reason for going to England was that his mother's trouble with her difficult husband had caused a large sum of her fortune to be thrown into Chancery, and Richard thought that he might assist to get for her this money, which she badly needed (in this he was fairly successful).

The P&RRR not only granted him permission to go, but entertained him to dinner, and promised that if he were back again within six months his position would be kept open for him, and his salary increased. Thus, with the goodwill of his employers and his friends, and the appointment of his brother John to his vacated position, Richard set off for Europe. In his baggage he brought a 10ft wooden model of a Howe Truss span, so that he might demonstrate the virtues of that invention. He cannot have imagined what was to happen to him before he would see Philadelphia again.

We may let him speak for himself in his Diary, always bearing in mind the caution, to be careful about accepting Osborne's facts unless they are confirmed by someone else. It is always a pity to spoil a good story, but some comments will be necessary. Osborne, be it remembered, wrote his story in old age, mainly from memory. Hence, he is not wholly accurate, especially in dating, although we may probably accept his account as generally true as a record of events. If his version of happenings inclines to show himself in a favourable light, that must be remarked also of the autobiographical writings of many people more famous than Osborne.

In such things as spelling and punctuation, I have for clarity occasionally altered Osborne's text; I have also added here and there a few words omitted by him, but required to make a sentence intelligible.

So to RBO and his tale:



A watercolour of Castleconnell railway station in the mid-19th century.

Richard Osborne at Limerick

On 30 April 1845 I handed over my charge as Chief Engineer of the Philadelphia & Reading Railroad Company to John H. Osborne, and bidding Pennsylvania farewell, sailed on 1 May 1845 from Boston for Liverpool, and after an interview with Robert Graves there, went by London & North-Western Railway via Birmingham, Paragon Terrace, to Cheltenham, to my dearest Mother, by 10 May after an absence of 10 years and 9 months, this fulfilling my promise of 26 July 1834 to her (*RBO is a little ahead here; the L&NWR was formed by amalgamation in 1846*).

... I had taken furnished apartments at 49 Essex Street, off the Strand, a short distance from Trafalgar Square, and finding that it was in this Square that Charles Vignoles had his engineering offices, I thought I might make my first professional call on him, as one of the foremost engineers then in London.

Accordingly, on morning of 23 May, 1845, I called on Mr. Vignoles; he received me pleasantly. I made known who I was, where I had been engaged, gave Brown, Shipley & Co. and McCalmont Bros. & Co. as my references, talked of the Osborne ancestors etc. - Mr. Vignoles listened and began at once to question me about bridge work, and asked me if I could build a 400ft. span. I said, Yes, the very last bridge I had arranged before leaving America was a span of this length for Major Trimble, engineer of the Philadelphia, Wilmington & Baltimore RR; that in connection with Howe, the original inventor, I was going to secure for Great Britain and Ireland the patent for his bridges and roofs, of well known efficiency in the U.S.

[Vignoles may have thought Osborne's visit a lucky event, for he was at this time approaching the problem of designing a bridge over the wide River Suir near Waterford, to bring the W&LR line to the south side on its way to the planned terminus at the city side of the river (not as made, on the Kilkenny side), and he may even have been wondering whether he had sufficiently considered some alternative crossing, higher up, such as Osborne, as we will see, urged on the directors later].

Mr. Vignoles seemed pleased, and at once said that he would like me to make a sketch of such a bridge as I would propose - 400ft. span with the rails 90ft. over water level. I immediately left to carry out his wishes. I soon completed a neat general plan, and took it to Mr. Vignoles on 27 May, 1845.

He had a large force of assistants and draughtsmen, getting up the plans and documents for his Parliamentary examination for the charter of the Leeds & Manchester Railway, and was hard pushed to get through in time.

He looked at the bridge drawing I had brought him, made no comments or enquiries, but remarked that his son had a large force in Ireland, getting up the Parliamentary plans for the Waterford & Limerick Railway, and after asking if I had ever been in Ireland? and being told my family estates were in the Counties of Tipperary, Kilkenny, Waterford, and Waterford, and that Sir Thomas Osborne, the 4th from the Duke of Leeds, whose estate was near Clonmel, was a relative of mine, he said: "Well, I will get you to go and relieve my son in Ireland, and then I

will appoint you my Resident Chief to construct the road".

Almost too astounded to speak, I managed to express my thanks, and my appreciation of his confidence in me, and asked to be permitted to aid him in perfecting his Leeds & Manchester plans, which I would gladly do if he would introduce me to his Principal above stairs, to which Mr. Vignoles gladly assented, and I was soon at work there ...

After the completion of the documents of the Leeds & Manchester Railway for Parliament, I saw little of Mr. Vignoles, who was busy there, and after getting letters from him to his son in Ireland, on 18 June 1845 I left London by the Great Western [*sic*] Railway for Holyhead and Kingstown, Ireland.

[Osborne did not, of course, "Go Great Western" on this occasion. He would have left from Euston station, terminus of the (then) London & Birmingham Railway, soon to be a part of the London & North-Western.] ...

... After my interview and engagement with Mr. Vignoles on 27 May, 1845, I called on Robert Stephenson, then in the midst of his experiments at Mill Wall, with "Tubes", as a guide for his construction of his Britannia Bridge, Messrs. Fairbairn and Hodgkinson, the engineers, being associated with him. I took with me my 10ft. model of the Howe Truss bridge of 200ft. span, placing it in Mr. Stephenson's private office, and then retiring till he was disengaged, to join his father Mr. George Stephenson, in adjoining room. With him I had several pleasant interviews, while waiting for his son Robert subsequently.

On my first interview with him he pronounced my model a "Lattice"!! Amazed at such an assertion, I explained the difference between a lattice and my model, and said: "A model of a lattice on that scale would scarcely keep its camber through its long journey here from America, but I will show you that even with my weight on the centre of the span, it will not perceptibly lose any of its camber," and throwing a bit of thin board (kept for the purpose) on its little top chords, I stepped up on it, and shifting my position so as to face Mr. Stephenson, the sharp heels of my dress boots *split the board*, when Mr. Stephenson, excitedly said: "Take care, your model is breaking down!" I replied: "Oh, No, Sir, it will bear eight times my weight, and recover its camber, as I can prove to you by loading it with 1200lb." ...

I resume my travels to Limerick. I lost no time in reaching my future home, by coach, and delivering my letters to young Charles Vignoles (who was glad to be relieved from duty there) and was soon at work in my new station, and pushing our Parliamentary work. There was much to be done, extending over the whole line 75 miles to Waterford, and a good deal of travelling for me, but was closed up by 18 August 1845, and with my assistants in charge of the different parties. I repaired to London to submit the whole to Mr. Vignoles. Our work was satisfactory, and nothing but final papers for the Committee on Standing Orders ("red tape") only had to be got up at the London office.

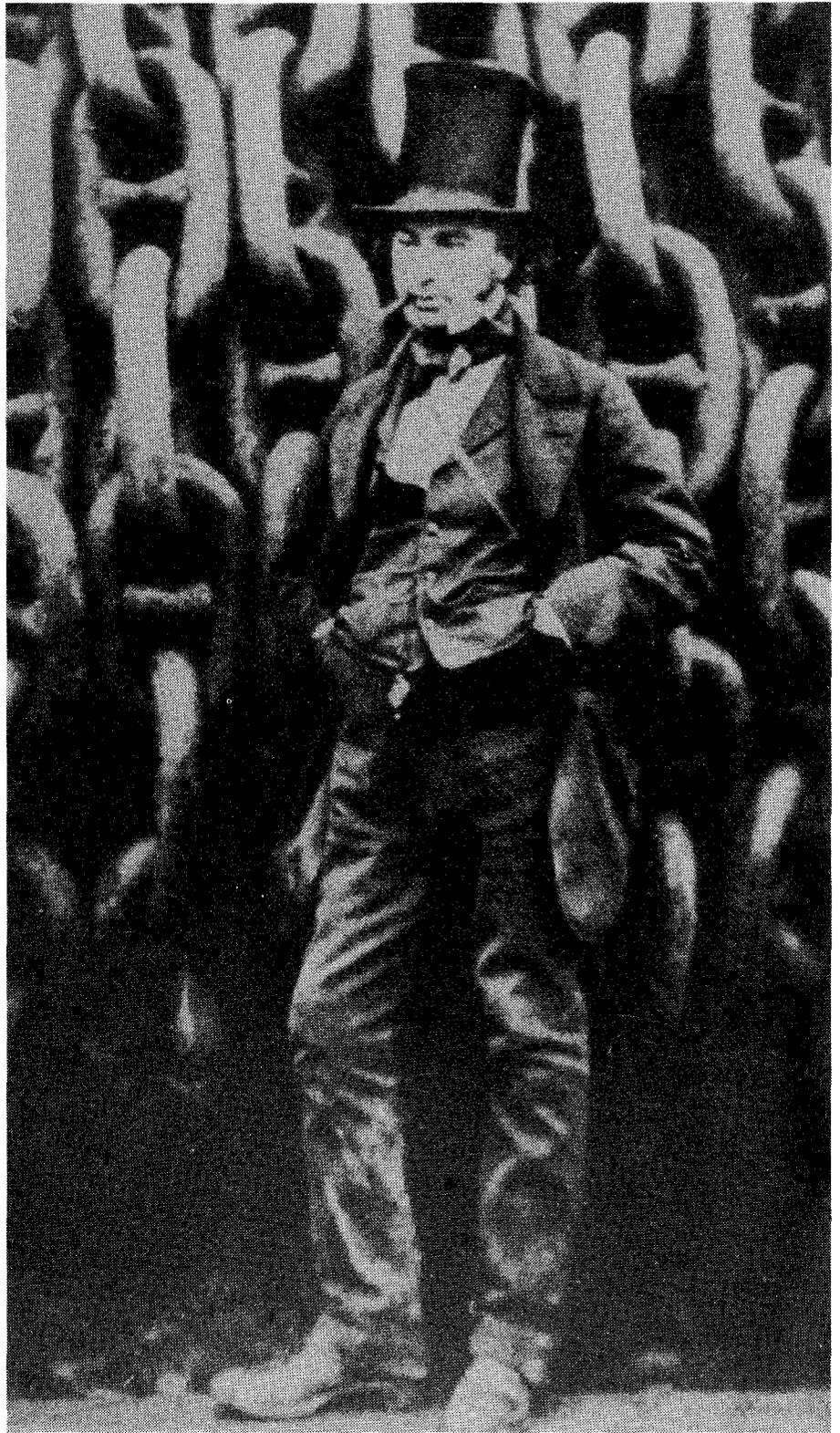
Our case was soon in Parliament and passed on Standing Orders, and then we went before a Committee of the Lords for final adjudication. ...

... We got our Act of Parliament 6 September 1845. Mr. Brunel of the Great Western Railway was present at the examination before the Lords, and when I left the witness stand congratulated me and said he was much pleased at my evidence.

With our Act of Parliament obtained my next step was the location of the line and preparation of work for contractors.

I immediately wrote to Charles P. Manning, who was my assistant at Fort Richmond in 1844.5, to join me at Limerick to fill the position of principal assistant, and to Abraham Klohs to come to me as master foreman of shops. I also ordered Mr. Manning to select one of Young & Son's best American transits and forward the same to me at once, being determined to break up the crude, slow, and imperfect English system which prevailed then in Great Britain.

I then, 8 September 1845, returned to Limerick to organise the locating parties from some of the assistants who had been engaged in the Parliamentary work. To make a start I was obliged to let my assistants use their own methods, having nothing in the way of instruments but the old unreliable English theodolite, and here the sheets of the "Ordnance Survey of Ireland" were of great use, being exceedingly accurate and answering as a



Isambard Kingdom Brunel.

perfect check on all the field operations. On these maps I would myself carefully with compass and ruler put down the line I wanted to be located in the field, and as every dwelling, building, and fence is correctly marked, the field work if accurate must be in exact position. I made them run out the tangents correctly, and then locate curves to come into them, because their curves, by the old offsetting system, would not throw off the tangents in the proper direction, and if curves were 'fudged', when my transit arrived they could be easily righted even if not done till

the lines for the trimming up the grading were given.

To M.E. Lyons, who had been very industrious through all the Parliamentary work, I gave a permanent position as my office assistant and secretary, for which he was most thankful.

Early in October my transit arrived from Philadelphia, when I had a good opportunity of introducing it, and our locating system, to our engineers. They had spent some days in trying to offset a long easy curve, which would not come into tangent. As I had forbid "fudging in"

by the eye, and they questioned the correctness of my lines on the Ordnance sheet, I got them to have new stakes and plugs got out for the curve, and said I would run in the curve on the next day.

Next morning, Young's transit made its *debut* in the field, and taking the angles of intersection of the tangents, I commenced running in the curve, keeping the stake-men busy. The ground was level and made few transfers of the instruments necessary, and I soon of course closed up, to the astonishment of the engineers and their men. "That", I said, "is the way we run curves in America! we require no after-fudging-in (their own term) by the eye; each plug is absolutely correct."

From henceforth the American system was used. Transits were made by English makers to supply the demand from our own corps ...

[At this time Osborne rented No. 3 Pery Square, which he calls "one of the most eligible residences in Limerick", and a short time later brought over his mother, and his wife and children].

During my necessary absence, Manning kept the locating parties busy, and by 7 November 1845 the line to the town of Tipperary, 25 miles, was ready for the contractors, and Mr. Vignoles, with William Dargan, the great Irish contractor, were in Limerick to inspect the plans and profiles (no other contractor was allowed to bid). They arranged the prices to the satisfaction of both. I had prepared the work to be let on schedule of prices as by our American system. Dargan did not wish to take work under that plan, but I carried my point with Vignoles, and plans and profiles were at once submitted by Mr. Vignoles to the Board of Directors, and I was instructed to proceed and carry out the same, on 12 November, 1845.

[Dargan may have given in to Osborne's insistence on the ordinary course of tendering, but his usual practice was to read the documents and, after a rapid calculation, make an immediate bid for the entire contract. This system, which most contractors could not have used, suited directors, for it got the work going at once, and any details of adjustment could be settled later, when Dargan was never difficult to deal with].

Abraham Klohs, as foreman of shops, had arrived on the 10th of this month, so I was prepared to commence work in the several departments.

The Limerick papers had exultingly published that the railway grading would be commenced on 15 November, and I had time to get the stakes set only on Sections 1 and 2. This was in the commencement of the Irish famine that lasted through 1846 and into 1847. The announcement brought a crowd of half-starved men to the line at Limerick on Section No. 1, some 600 men all determined to work. The directors, fearing some disturbance from the 600 men, each



George Stephenson.

carrying a pick or shovel, and without conferring with me, had sent to the ground a sergeant and company of police, which I totally disapproved of, as the men were only showing an anxiety to go to work, and it was certainly an error to inaugurate the commencement of the road by such an exhibition, tending to stir up insubordination, which it was my special object to guard against, knowing the difficulties I would have to encounter with the "Body Men", whose old dominant rules were sure to conflict with my *modus operandi*. All this would fall on my shoulders, and if I could not control them at the start by judicious action without a show of police, my regime would end in failure, as these "Body" rules had not been broken for 200 years without causing the assassination of the venturesome reformer who had made the attempt.

When therefore I reached the ground at 6 a.m. on the 15th and witnessed 100 armed police drawn up in line, and in front of the crowd, who were quietly waiting to be set to work, I felt no hesitation in acting on my own responsibility, even in

contrariety to the views of the Board. I immediately took up position between the two parties, where my words would be easily heard by each, and after a kindly salutation to both, I asked the sergeant in distinct words, "What have you brought your men here for?" He said, "to prevent disturbance, and keep the peace". I replied, "As the engineer of this work, I order you to march your men back to their barracks, and I relieve you of all responsibility in doing so - all these men know I am their friend, and will go with me and obey my orders, and there will be no disturbance. We can ourselves settle all our matters quietly".

The sergeant, rather reluctantly, obeyed the order, and I had the crowd to manage with, without let or interference.

With my experience in the management of the Irish in the U.S., I had perfect confidence in my ability to control those before me.

My words to them were: "Boys, you have come here to get work. I can see you all badly need it, and I have come here to give it to you, and to be your friend, and I

want all to help me to carry out my plans for doing so. What wages have you been getting?" They replied: "When we got work, which was mighty seldom, Your Honor, we got four pence aday!" I said: "No wonder there are so many hungry people in Ireland! The first thing I have done for you, is to arrange the wages with the contractor, and to start with it will be one shilling aday, and be more afterwards. I want now to ask you, how am I going to manage? You all want work badly, but I am not able to set more than 300 of you to work today, but how am I to choose 300 from you, when you all need it equally? In a couple of days, I will put all the rest of you to work. Now, suppose we settle this by drawing lots. Let every man draw a slip of paper out of a hat, and each man who draws a slip with a number on it will go to work now, till we have the 300 men, and 2 days after today I will put 300 of the rest to work also. What do you say, Boys? I am sure we can settle our own affairs in the best way, without the help of police".

As all had a fair chance, all agreed to my proposition, and we proceeded to carry out the program. James Dargan, the brother and chief foreman of the contractor, taking down the name of the lucky one and handing him over to a foreman, till 20 men were ready, when the squad were marched off and set to work, and so on, till we had our 300 men.

I then reiterated to the rest with: "You boys all come back to me in two days after today, I will set you all to work also". This arrangement fairly carried out pleased all hands, all went on smoothly, there was no disturbance, and the mode of procedure had a moral effect, which proved afterwards most beneficial to the whole undertaking and personally to the engineer, as will appear hereafter.

The forces were increased as promised, and the contractor daily added to them on the several sections ...

The work on the Waterford & Limerick Railway was *first class* in every particular. All cuttings, in anything approaching earthy material, we made to a slope of 1½ to 1. The natural vegetable mould reserved to be spread over the slopes and then sowed, which always resulted in good grass sods, that were regularly mowed each season. The whole road was enclosed by walls or hedges. The masonry was of the best quality in each class. What we designate "rubble" was not known in any of the structures. The trains passed over those of stone or iron Howe Truss.

The track was laid with a double-headed rail of 75lb per yard, with a cast iron chair on each tie of 30lb, and 35lb at the joints, fastened by kiln-dried wooden wedges. The ballast of broken stone of 12 inches in depth ...

William Dargan got on very well and his work was satisfactory. I dealt liberally with him in my estimates, and seemed to be able to work him to a finish. This state of things lasted throughout 1846 and well into 1847, but in September of that year the advance of work did not continue with the usual efficiency, and on 1 October



William Dargan.

1847 Mr. Vignoles paid me a visit at Limerick accompanied by contractor Dargan.

At my office they looked over the plans and profile, when Mr. Vignoles called my attention to the latter and said that he thought it would be advisable and necessary to alter the grade at a certain point. I said, it had been already graded there, and that the change would increase the cost of the work, and would be objectionable in other ways; that the masonry of Groody River bridge was about ready for its iron superstructure, and that it had been done by the plans I was ordered to carry out, and which had been submitted to the Board and approved of them; that I had fixed that grade to suit watercourses that intersected the cut, and that the drainage for the same had been accordingly built, and that the alteration proposed would cause vexatious delay and be injudicious, without any benefit to the railway.

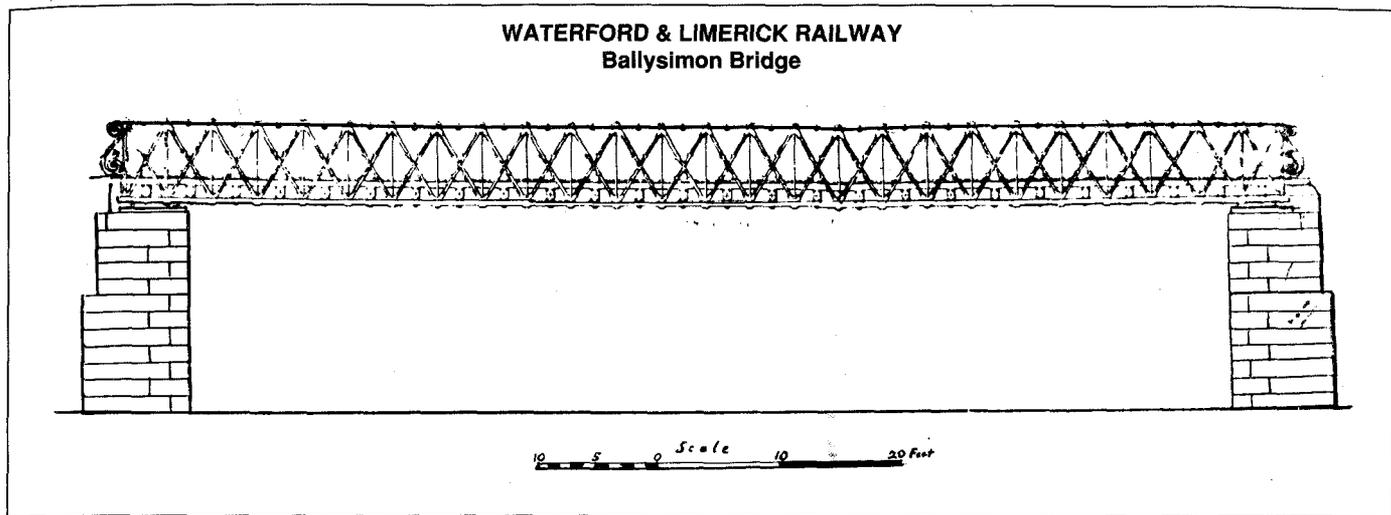
Mr. Dargan was present, and Mr. Vignoles, not entering into my reasons, said: "I see you do not understand our mode of working here, and if you cannot carry out my instructions, I will get one who will". To this abrupt utterance I replied that my object was to carry out his orders, and that those already given *had been faithfully observed*; that if he thought

proper to appoint another in my place, I would in like manner submit, and when it suited his convenience to do so; I would remain until I had put my successor in full possession of information about the work. The question had been mooted before, and to some of the directors, who often visited my office, I had incidentally mentioned the change had been spoken of as possible, but that I had made the work by the plans approved by Mr. Vignoles, and adopted by the Board. I supposed it was only a suggestion, that they would know of the proposition before it was carried out; that I did not think it a judicious change.

Mr. Vignoles was at the time of his visit to me on his way to a meeting of the Board in Waterford, on which occasions I always accompanied him in his carriage, but he at this time let me take a seat in the public Bianconi 4-wheeled car drawn by two horses.

On reaching Waterford, I repaired to the hotel, to wait there in case I was wanted, and before going to the Board meeting Mr. Vignoles called and urged me to complete the plans of Granagh bridge, the 400ft span which he spoke to me of at my first introduction to him in London. I replied: "My successor, for whose appointment I am waiting, would have to make his plans, neither would I entrust

WATERFORD & LIMERICK RAILWAY
Ballysimon Bridge



The Howe Truss railway bridge erected by E.B. Osborne over the main Limerick-Waterford road at Ballysimon, 1848.

him to carry out my plan, the principles and practice of which he must be entirely ignorant of. Mr. Vignoles did not return, in fact *I never saw him after*. I was visited at the hotel by the Secretary, William Saunders esqr, who invited me to the Boardroom, where I was most completely surprised at the action of the Board, with reference to myself. I learned subsequently that Mr. Vignoles opened his communication with the directors by accusing me of insubordination; that I had introduced new methods, and American instruments, that he did not approve of; that I was unaccustomed to the management of public works in Great Britain, etc, etc. Some of my directors who knew much of the particulars of my office, from being frequently there, and from whom nothing was kept of information relating to the road and its progress, spoke in my behalf, as reliable and energetic. Then Mr. Vignoles, determined to carry his point, said: "Well, gentlemen, I beg to inform you that Mr. Osborne must leave the service of the Waterford & Limerick Railway Company, or I will, as he can no longer be associated with me".

The Chairman Mr. Meagher (the father of Thomas Francis Meagher, the leader of the "Young Irish Party", who

flourished for a time in America and died there) at once said: "Mr. Vignoles, we have heard your ultimatum, and our reply is due to you. Will you be good enough to withdraw for a little while to the next room, to enable us to confer on the question, and we will be ready to give you our decision on the same".

They soon after invited Mr. Vignoles to return, and then informed him, they had unanimously resolved to accept his ultimatum, and retain the services of Mr. Richard B. Osborne, as their Engineer.

Amazed at this result, unlooked for by me, as I had made no effort to thwart Mr. Vignoles's design, and had honourably acted for him and never had opposed his views till he tried to make me act otherwise to the directors, I felt that all had been controlled by the Great Ruler of events, who had guided my every step since I had left my home, and had marvellously brought me back to an honourable position as the representative of a well known family.

[A few comments may be well to make here. The W&LR directors on 14 October, 1845 considered Vignoles's report on the tenders received. Those of Mullins and Philips were too high.

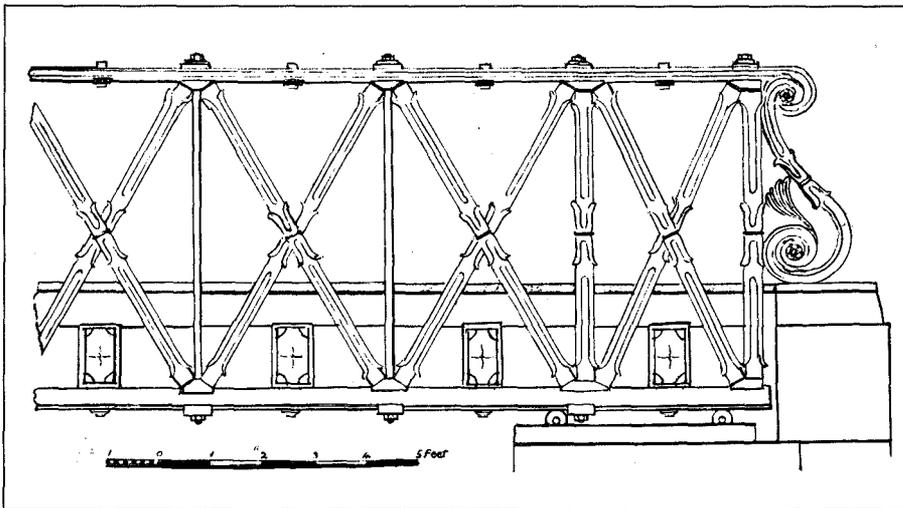
Dargan, and the firm of Hammond, Murray & Patterson were much the same, so Dargan was preferred. On 17 December it was resolved that Vignoles was to be paid £1000 p.a.; to visit the line at least eight times in the year. Osborne to be General Superintendent, with headquarters at Waterford, at £800 p.a. plus expenses. Both these offers were accepted.

On 23 March 1846, however, the directors thought that Vignoles had too many other matters to attend to, and gave Osborne full control; also that the "old gradients" between Limerick and Tipperary should be adhered to (they were in the contract with Dargan); Osborne had given a letter of resignation, but was allowed to withdraw it, and thus remained in sole control. Vignoles was naturally annoyed at this, but when on 1 June he resigned his position, the board accepted his letter in handsome terms. By May the directors were convinced that work would have to be halted beyond Tipperary, in the condition of the country and the company. Before long, also, it became necessary to relinquish the contract with Dargan, the company having no means to pay for work done].

During this interval, Charles P. Manning, principal assistant, who had joined me in October 1845, tired of witnessing the distress in Ireland, resigned on 1 July 1846 and returned to America, and was succeeded by Mr. John H. Osborne, who had left the position of Engineer in Chief of the Reading RR Co., to aid me in the Waterford & Limerick Railway.

Immediately after Mr. Vignoles's "ultimatum" had been accepted, Mr. Dargan abandoned his contract on the Waterford & Limerick Railway, this was on 5 October 1847. The labourers were instructed to keep quietly in their boarding houses, till the work started again, arrangements being made by James Dargan for said houses.

I immediately wrote for James Chisel, an old and good contractor of the Reading RR, who had laid up his earnings and had



Details of one end of Ballysimon Bridge, Waterford and Limerick Railway Company. Sketch from an engraving.

returned to Ireland. I also wrote to Patrick O'Reilly to come to me on receipt of my letter. Chisel was with me in a week, by 12 October, and O'Reilly who arrived on 3 November 1847 was ready to contract for as much of Dargan's unfinished work as I chose to allot to him, at Dargan's prices. The abandonment of Dargan's contract failed to cripple us as expected, and the work with little loss of time went on at same prices.

Both of these contractors made fair profits, and the construction of the road was progressed with satisfactory towards completion.

[Despite Osborne's assertions, it would appear from the W&LR records that everything did not always run smoothly between him and his directors. His great confidence in himself, and in his American experience, may have at times rather irritated people, even those willing to acknowledge his abilities. He must, nevertheless, have had very great goodwill from the directors to be able to meet the problems, principally monetary, which now were besetting the company, but it was not to be long before it had to be decided to cease all construction beyond Tipperary, and trust to the recovery of the nation from its calamities for a possibility of resuming progress towards Waterford.]

A very interesting period was beginning, when the W&LR actually built its own bridges and rolling stock in its own shops; very few companies can have so done, and Osborne must have possessed great powers of organisation to be able to carry out the company's programme under prevailing conditions.]

Abraham Klohs, the foreman, had gone to work to erect shops on his arrival in November 1845. We had little machinery to manufacture of the Howe Truss bridges, with numbers of various spans to get ready, and commenced with operators by hand; but our greatest difficulty, as I expected, was in setting aside the rules for the Irish "Body Men". My Foreman engaged men as he thought them competent for the different kinds of work, their fitness being the only criterion that governed his choice. This mode of organising a working force for the shops was objected to strenuously by those styling themselves "Body Men". They insisted that none but those of their body should be employed; especially, they objected to any such being put to work in the same shops with them. They said, their rules demanded that no "colts" (their term for apprentices), should be set to work at jobs which rightfully belonged to a higher class of workmen, and if employed, should be in different shops, by themselves. They refused to allow the introduction of machinery of any kind, while I had already ordered several.

Foreman Klohs with deep concern reported all this, and stated that if he was to be thus hampered, he never could get through the work satisfactorily to me or to

himself. I told him not to be disappointed, that those old rules should never govern me or him. I avoided personal talks with the men, but notified the objectors to be at my office at a certain day and hour, to confer with me. They came accordingly, and nearly filled the room.

The first step was to put the Foreman in his proper position, by stating that Mr. Klohs was only acting under my orders, and in no way responsible; "he refers everything to me, and you will find that as a mechanic he certainly will allow no injustice to be done to anyone".

I then continued in a quiet, conciliatory, but definite manner, and this was the tenor of my talk with them: "I sent for you, men, to speak to you very candidly, but not to argue with you, as wiser men than either you or me have settled all the questions raised, and under that I have been working for 25 years. I speak to you as reasonable men, who have a very proper desire to benefit yourselves. You have for many years tried your mode of working, and what is your condition today? has it brought you any benefit? while that derived already from your work from me, at fair wages, gives good promise for the future. I want you to know that many Irishmen can tell you, that they have made fortunes, working for me. I have come 3000 miles to you to introduce the mode that we have worked under in free America, to benefit and not oppress you. That there is no one who after the true merits of the case are made known to you, will raise his voice against my mission in your behalf, I do most truly believe.

"I am not here to contend with you, but with fair treatment and even generous dealing, to labour with you for your welfare. My friends in America, among whom are numbers of your countrymen, are waiting for my return, and I am offered 50 per cent additional salary, and the position is kept open for me, but I have chosen to spend years in building your railway, to benefit you and yours. I ask nothing but what is practised in free America, and as I said before, I am not here to fight with you. If you wish to fight, you will have to do so with some Englishman who will take my place and who will know how to grind and oppress you as heretofore. I am here for your good, and you all know how I have set my face against coercion. Now, men, I want you to work with me, your goodwill and confidence, and the only way to insure the prosperity of the Railway and yourselves, that I may be able to do justice to you and to the Company, in the expenditure of one and a half millions of pounds, which I have just commenced to spend among you, as the earliest gainers. My decision, it is proper you should know, that you may be able to make yours understandingly. Therefore, if you cannot cheerfully and confidently accept the kind and honest appeal and agree to my management, and all my orders and instructions, as such shall be given for me by my foreman, I have only to inform you, that I will leave

you to yourselves, in the hands of strangers, and will return to free and prosperous America, sorry for your shortsightedness, and conscious that it was no fault of mine that Ireland had been shut out from the many benefits which at great effort I had laboured to bestow on her".

The temper and mien of the men during my talk had encouraged me as to the result. They certainly had never been greeted with such words of inducements before. I gave them an opportunity to talk over my decision among themselves, and our interview ended in the expression of their satisfaction with my arrangements on their behalf, and their promise to obey my orders as conveyed to them by Mr. Klohs, who was present during the meeting. This was my greatest victory in Ireland, won by honest and considerate treatment in the face of many warnings from friends, of its subjecting me to personal injury!

[Osborne's speech to the "Body Men", as reported by himself, must be regarded as a performance equal to those of many who, by daring assumptions and a candid manner of speaking, have convinced a crowd of opponents who had, to all appearance, the superior hand. But he must by now have realised that he must take a stand, if he were to maintain any sort of progress in the work of the construction, for a company which was approaching a crisis in its affairs].

I had some difficulty afterwards with the sawyers, who were told, when two locomotives came in vessels in parts, that they were Saw Mills, congregated at the wharves to prevent the landing, but they were quieted when duly enlightened.

The painters and finishers also raised questions, but I told them that our work would be given to men from the counties our line passed through if they were able to do it, and if not they would be taught; that I had applications from England and Dublin, to which I had given no encouragement.

This closed my troubles with the labour organisations.

Some few of the land tenants had driven off the contractors and their men, although arrangements had been made for Right of Way with the landlords, and I had to visit their holdings. I calmed down their troubled minds by a little quiet talk, set them to work at a shilling a day, and said wages would be one and sixpence soon, and even more to men worthy of it.

In July 1846 we commenced the building of American passenger cars; they were 2nd class cars. They were the first 8-wheeled double truck long cars built in Great Britain. We also built house cars for freight, on the same principle. The passenger cars were of the 2nd-class, the Board not permitting us to build 1st class.

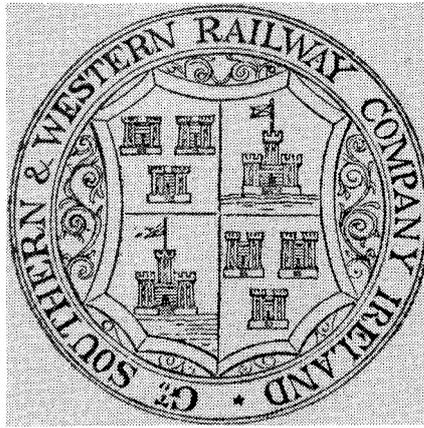
[Perhaps the directors did not think that Osborne's ideas would lie in the

direction of the luxurious 1st class coaches which every railway then regarded as essential to provide. On 17 May 1846 Osborne reported that only one tender for 1st class carriages had come in; he was sent to Dublin to look into the matter, so that on 29 July it was agreed that Dawson should build two 1st class at £630 each; its number would be enough to go on with, and the price shows that the W&LR would do well by its 1st class customers].

The freights were to supplant their poor 4-wheeled open cars covered by tarpaulins. Cast iron wheels, properly chilled, were not to be had anywhere in the country. The 2nd class were well upholstered and comfortable, and this was considered objectionable by the connecting roads, where 2nd class were so inferior that passengers complained, and this was the cause ultimately that by bringing their influence to bear on the W&LR directors, that made them cut the American cars into two parts and put four wheels under each half! The people had to be educated to appreciate improvements, but they learned the lesson when Pullman attacked their ignorance and prejudice by large expenditure and perseverance. The Great Western tried to get up a long car that would be English, without trucks, and with the body hinged in the middle of its length, but its capers and buck jumping soon consigned it to disuse.

Our car and machine shops were permanent buildings, with all American improvements. The plans on the office will show them and our stations; the Howe frames and roofs were all made at the Limerick shops, ready for erection. Everything they could supply was as a rule obtained from Irish dealers.

Taking up the general consecutive narrative from 3 November 1847 ... we will speak of the inspection of the road by Captain Simmons, Government Engineer, on 20 October 1848 and its public opening 15 November 1848 [these dates are incorrect: they should read 18 April 1848 and 9 May, 1848]. Capt. Simmons, in his tours of inspection of Irish railways during this year, had not found one in the complete condition required by Government to enable him to permit it to be opened for travel, without giving each some months to make good the deficiency, and obliging him to pay a second visit of inspection. He did not look for any other result on the Waterford & Limerick Railway, especially as Sir John Macneill had said that the iron bridges were very defective, and could not stand up under rapid heavy travel. This had reached the ears of shareholders. Capt. Simmons entered the train at the Tipperary station on his route of inspection to Limerick. The train consisted of a long American passenger car and a new baggage car of the same type. The Captain's first remark was: "I am surprised and pleased to see the American car at last introduced on our roads. I have been trying for years to get them adopted,



Logo of the Great Southern and Western Railway Company.

and could find no company bold enough to do so". I said: "the prejudice is because they are not English". A large table in the car had all the plans, profiles, and good drawings of my iron Howe bridges. I particularly called his attention to the latter, as engineers spoke very disparagingly of them and I had erected at each bridge a convenient platform with a means of measuring the deflection of the span, and had two of our heaviest locomotives to pass in any way he directed over each bridge, in order that he might conveniently get the data for his opinion of their capabilities.

The Inspector examined the plans. We stopped at each bridge, and made close examination, using the locomotives every way and at different speeds, and in the afternoon closed our work, and I escorted Capt. Simmons to No. 3 Pery Square, where he was duly received and hospitably entertained by my whole circle there.

After dinner, the ladies retiring, I informed Capt. S. that the Railway Co's meeting was being held in Waterford, and I had hoped to get his permission to leave this evening to attend it. He replied: "You have fully met all my requirements, and I am happy that I can give you my certificate as Government Inspector, permitting you to open to public traffic the Waterford & Limerick Railway from the city of Limerick to the town of Tipperary". I accordingly left with certificate in my pocket, in time for the meeting next afternoon.

On entering the room I was welcomed by anxious shareholders enquiring about the Inspector's visit. I played them off till the chairman called the meeting to order, when I was asked by him if the road had been passed by the Inspector. I replied, certainly it has, and handed him the certificate. Then came a buzz of congratulations.

[Here, alas, we must dismiss Osborne's story of his triumph before the anxious shareholders of the W&LR. The minutes of the board show that it was to a meeting of directors that he brought the good news of Simmons's favourable verdict, on 19 April 1848, and that the certificate would follow him instead of being to hand. But the directors that day

resolved: "that the thanks of this Board be given to Mr. Osborne for his great exertions in preparing the Line for Inspection in spite of the continual bad weather that has been experienced during the last few months". This was triumph enough, for there had been in recent weeks some rather acrimonious exchanges between board and engineer.

With the remainder of Osborne's career this paper is not concerned, but a little may be added. In 1850 he returned to the U.S.A., and after some time settled to his profession as a railway engineer for a number of railroads, and he also wrote some valuable works on various engineering subjects. For one thing he may be especially remembered; note had been taken of a certain part of the New Jersey coast as offering possibilities for development, and Osborne became the driving force of the movement to establish the well known resort, Atlantic City, which quickly became one of America's most attractive holiday venues. The Jubilee of its foundation, in 1904, was marked by the erection of a monument to its founders, and Osborne's name is one of those inscribed.

When R.B. Osborne died in 1899 he was 84 years of age, and had done a lot of valuable work. His "diary" he did not carry beyond the year 1856, but it records many details of his American career. Most of what he constructed, in America, is probably not now extant, swept away with the increase of traffic and new works needed. Of his W&LR work, what he built in stone is in daily use, most of it, and shows that it was well made. Osborne's Howe Truss bridges and roofs have gone, as might be expected, being well up to their term of life when the W&LR was taken over by the GS&WR in 1901. The Limerick terminus roof was by then in serious condition, according to the evidence of William Barrington, a prominent engineer, in 1900 ...].

SOURCES

National Library, Dublin: MSS 7888-7895; also MS 9606, a volume of various typescript items, including a transcript of the Diary, notes on RBO's family and career, etc, apparently compiled by his grandson and presented to the NL in 1956. I am grateful for permission to use extracts from these MSS.

I must also return thanks for examination of W&LR records, in Heuston Station, CIE.

Simmons's reports to the Board of Trade are printed in Commons Papers 1849, vol. 27. Also, in vol. 29 (Report of Royal Commission on Use of Iron in Railway Structures), there is at p. 413 a letter of RBO, dated Limerick 13.12.1847, describing the Howe bridges he erected for the W&LR, with a diagram of the 86ft bridge at Ballysimon, over the main Limerick-Waterford road, which cost, he says, £1289 without cross-beams, and roadway. The 50ft. bridge cost, complete, £625.

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