were set on fire by passing trains. Many of the young lads too passed the time by jumping on to the trains as they rolled by and travelling on to the end of the line wherever it may have been; some of them also amused themselves by changing the points on the rails to the consternation of the German foremen who were faced the next morning with the task of getting the locomotive and the wagons back on the rails.

The building of the scheme continued apace until late 1927 when a serious row blew up between McGilligan and Siemens. The Government-appointed Shannon Board of Control felt that Siemens were falling behind schedule and McGilligan was insistent that the work be finished on time. Dr. Karl Frederick von Siemens wrote to the Secretary of Industry and Commerce, Gordon Cambell, in July 1927, saying that they could not finish on time and asked for a six months delay. They attributed the delay to a strike, three months of bad weather, delays in the acquisition of land, lack of accommodation for the German workers, the scarcity of good labour, and "the small output of Irish workmen". McGilligan refused the request. In a very forceful letter to von Siemens the only valid reason he would admit for the delay was the strike, which for a while had threatened the project early on. In another letter he softened his tone and urged that the time schedule be kept "for the prestige of the Government and Siemens. Dr. von Siemens replied, "the Shannon Scheme is for us more than just a business problem—even national interests are at stake. This view is shared by everybody in our House". The fact of the matter was that the international community was watching the performance of Siemens in Ireland and Paddy McGilligan could not afford the extension neither in time nor in money. The Minister refused to accept the pleas for an extension and by November was threatening to invoke the penalty for non-completion.

Sharp exchanges continued between McGilligan and von Siemens through the spring of 1928. The contractors were not making up any lost time and this worried McGilligan. In March he wrote to von Siemens, "The circumstances under which the development of the Shannon Scheme were undertaken gave it a publicity that was almost worldwide. Details as to the progress have been received by my Department from very many quarters, and engineers, not always interested in the success of the Scheme, have visited the works to find material for commendation or criticism of what is being done."

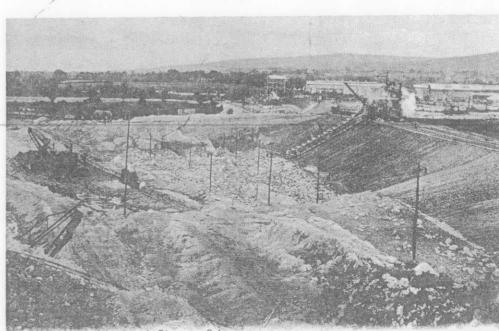


One of our own at work!

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A conference was arranged in London at the High Commissioner's office on March 19 in an attempt to resolve matters. Dr. von Siemens and Paddy McGilligan both attended. The meeting led to an improvement in relations and a further conference was held in Dublin in the Shelbourne Hotel in May. As a result of these meetings, von Siemens agreed to send in more machinery and equipment in order to finish the work on time. Among the equipment was a number of extra locomotives and wagons which, some have argued, increased the pressure on the existing lines, crowded them, and did not help at all in speeding things up. Work, however, was finished on schedule and the Scheme was officially opened by President Cosgrave on Monday, July 22, 1929.

From then on, men and machinery gradually became redundant on the site. Navvies returned to their homes in various parts of the country and Siemens sent their locomotives and heavy equipment back to their headquarters in Berlin. The eight miles of the Scheme were fenced, landscaped and manicured. The only trace of the 62 miles of railway track remaining was the link line between Ardnacrusha and Longpavement. For many people it has just a functional significance long since passed but for many more it is part of history. Long may it remain so.



IMERICK. The Canal, Shannon Scheme.

Milton Series postcard.

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RETERENCE DEPT.

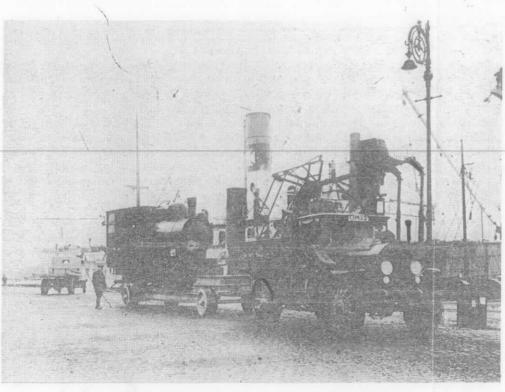
The Shannon Scheme Railway

By MICHAEL McCARTHY

What an exciting sight it was for us children in the 1950s, perched on the level-crossing gates at Parteen at ax, watching the steam engine powering and squealing its way to Ardnacrusha. The train was a rare sight then because "The Line", as it was known locally, was seldom used. We were never quite sure why the train was going to the power station, but it did not matter. The sight of that great barrelled engine, belching and billowing smoke, was enough to engulf and smother any childish imaginings. During last summer I had occasion to film part of that same railway line at Longpavement for a sequence in a documentary film on the Shannon Scheme. Sadly, I noticed that in many places the track was showing signs of dilapidation and decay which, presumably, will hasten its removal entirely.

The two-and-a-half miles of railway line from Longpavement to Ardnacrusha were built during the early days of the Shannon Scheme. On August 13, 1925, the fledgling Irish Government and the German company of Siemens Schuckert signed the £5.2 million contract for the electrification of the Free State. Amidst considerable controversy and opposition work began immediately. German and Irish engineers rapidly conducted surveys and staked out areas in Parteen, Ballykeelaun, Clonlara, O'Brien's Bridge and Killaloe. Speed was the essence of this contract which was to be completed within three-and-a-half years. By the end of the autumn most of the preparatory work which would facilitate the massive construction operation was finished.

The living conditions in Ireland which the Germans encountered were quite primitive. Valentine Williams, the novelist, writing in the *Structural Engineer*, gives a rather florid



Limerick Docks: locomotive being transported to Longpavement.





Wagon wheels and generator parts for Ardnacrusha turning into Castle Street.

account of what the Germans had to face, an account which is not too flattering to the people of Parteen or to the place:

"A Titan's task confronted these peaceful invaders. Ireland could bring almost nothing to their aid save the more or less willing arms of her unskilled labour. The German engineers found themselves in a virtual roadless tract of desolate pastureland with naught save a couple of miserable hamlets all the way from Limerick to Killaloe. There was no power station they could utilise, no railway to transport the plant to the building sites, no fuel except imported, and at Limerick docks totally inadequate facilities for handling the fabulous quantities of materials required....

"As they inhaled the soft and sluggish Shannon air and watched the ragged natives pottering about their wretched hovels and dim cabbage patches in the leisurely manner peculiar to the west of Ireland peasantry, hearts less valiant than those of the professional engineer must have quailed before the magnitude of their undertaking."

While Williams may have exaggerated somewhat, there is no getting away from the fact that conditions in those days were bad. Roads to Parteen and Clonlara were surfaced with loose stones and sand which quickly turned into a quagmire during the winter months. Even as far back as December, 1916, *The Clare Journal* carried a report of Fr. P. Russell, parish priest of Parteen, attending a meeting of Clare County Council in Ennis where he spoke on behalf of the parishioners, stating that the roads in the area were a disgrace because of a large traction engine going to and coming from the local quarry which supplied stones for the Limerick-Broadford road. He complained that there was nothing but mud everywhere and that this constituted a danger to people and vehicles (mostly bikes in those days). Ten years later, in 1926, the situation had not improved. "There's no mud like our mud which is the father of all muds", said the *Limerick Leader* of December 18. Clare Street in the city, because of its bad surface, was known as "a second Clonlara", according to another report in the same paper. So when the Germans arrived with their massive 35 ton trucks and began to motor about the place the local authorities just had to take action.

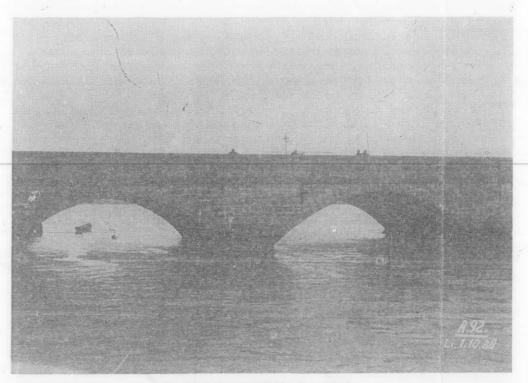
After a series of hastily called meetings a levy of £192 per annum was put on Siemens for the upkeep of the roads with a down payment of £250; the Government made a grant of £1,638. A temporary truce was thus engineered and people went on discussing the novel "Compound Road", consisting of two parallel strips of concrete wide enough to fit the gauge of most vehicles, which was exhibited at the Dublin spring show that year.

There was no way the Germans could transport their materials and machinery to Ardnacrusha by road. A railway line was vital for the success of the project. It was decided that a railhead would be established at Longpavement and from there the contractors would run their lines to the various key points on the site. The railhead would join the Great Southern Ennis-Limerick line at Longpavement and this would facilitate the transportation

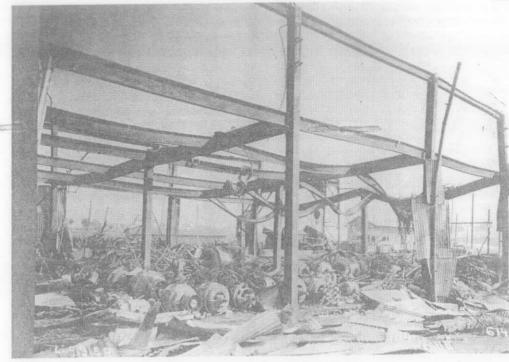
of equipment from the city by rail.

It was also decided that part of the line from Longpavement to Davidson's public house, Parteen, would be electrified. This was in accordance with Siemen's policy to electrify those parts of the line which would not be moved during the whole period of construction. So for this purpose a line of poles was run from the temporary power station which the Germans had built at Ardnacrusha, to Longpavement; a transformer house was constructed; electric wires were run the length of that stretch of line and the whole job was completed by March 1927. Siemens, of course, were pioneers in the development of the electric rail system, as they were in so many other fields of engineering.

Having decided on Longpavement for their railhead, the Germans also built their stores there. These were subsequently burnt down, delaying the project considerably. Everything, even the steel girders for the stores had to be imported from Germany. Steamers arrived weekly from Bremen and Hamburg bringing, first of all, lorries to run the material from Limerick docks to the railhead and then, to speed up work on the quayside, an electric derrick and two oil cranes were imported. There followed the various elements for building a railway—metals, fish-plates, sleepers, and 62 miles of railway track. Next to arrive were 76 locomotives, with engine cc of 120-220 h.p., and over 1,000 wagons. On top of this



Surveying Thomond Bridge for strength.



Aftermath of a fire at Longpavement stores.

came hundreds of small trucks, caterpillar excavators, bucket and shovel diggers, concrete mixers, stone crushers, repair plant and heavy motor boats. In all, about 30,000 tons of large and small plant were imported and railed to Ardnacrusha once that part of the line had been built. The locomotives were transported from the docks to Longpavement on rail trailers which were hauled by 100 h.p. Daimler tractors. Extensive tests had been carried out by German engineers on all bridges between the docks and Longpavement to ensure that they could take the enormous weights now passing over them. The rail trailers were also used in transferring the locomotives from one point to the next on the site, or in case of breakdown, when the train had to be brought to one of the workshops at Ardnacrusha.

It was the navvies' lot to lay the tracks. This was a backbreaking job setting the lines and dismantling them again as soon as construction on one particular section of the site was completed. The operation was made all the more difficult in winter when a man could sink to his waist in mud if he stepped off a sleeper. Most of the labourers were unused to this heavy work and it is therefore hardly surprising to note that the vast majority of serious accidents reported on the site were in connection with the railway. The year 1927 seemed to be the worst year in this respect:

"a James Everett had a railway sleeper fall on him;

a John O'Reilly was caught between two bogeys and had his leg fractured;

a Thomas Kiely of Galway was run over by a railway bogey at Blackwater;

a German mechanic Fritz Zaum was injured by a bogey at O'Brien's Bridge; and

a John Howard of Thurles was injured at Ardnacrusha when a set of rails fell on him." Incidentally, by the end of 1927, Paddy McGilligan, the Minister for Industry and Commerce, reported to the Dáil that so far there had been 12 fatalities and 39 accidents. For the remainder of the scheme the listed causes of accidents are heavily sprinkled with train items—buffers, sleepers, bogeys, wagons, lengths of rail, etc. Compensation for the poor unfortunate victims of various accidents was minimal and sick pay nil.

Even for the locals the railway brought its own hazards. Many nearby thatched roofs