

AN ENGINE FOR CHRISTMAS!

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Move of a 120-year-old quarry engine to the Industrial Railway Museum at Penrhyn Castle

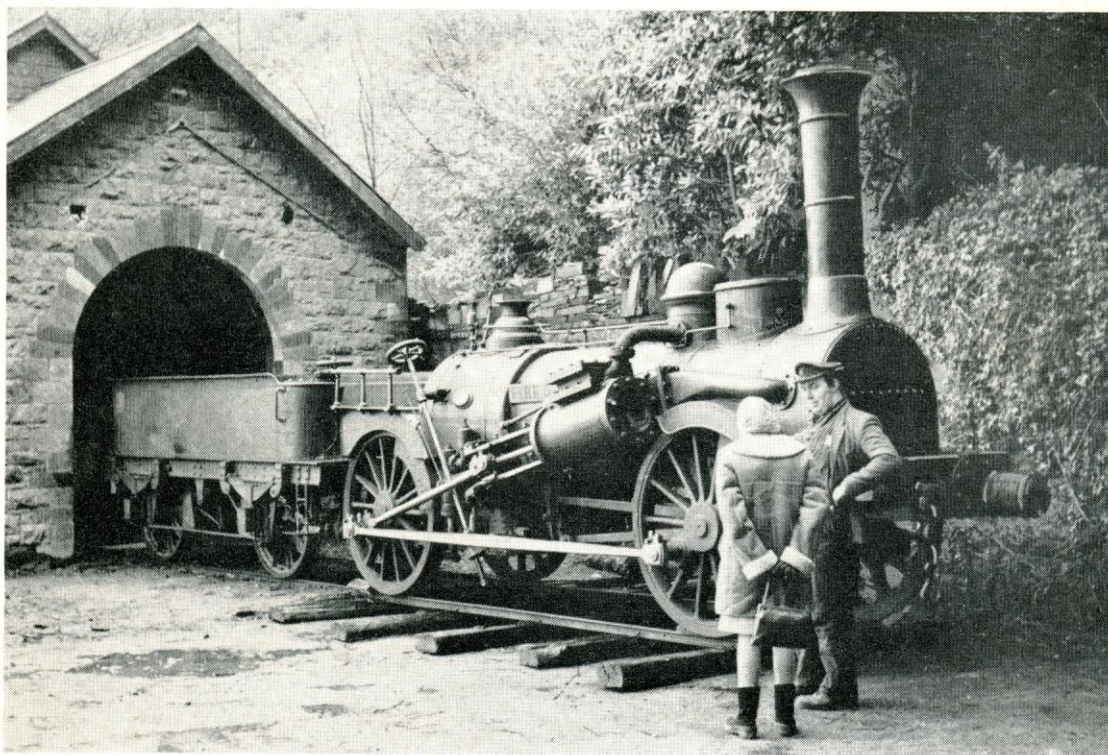
ONE of the less well-known Welsh quarry railways, the Padarn, had its origins in a 2 ft.-gauge tramway built in 1824, connecting the slate quarries at Dinorwic near Llanberis to Port Dinorwic, the point of shipment on the Menai Strait.

Locomotive working was not introduced until 1848, when the railway was rebuilt to 4 ft. gauge on a new alignment. In that year, the firm of A. Horlock & Son, of North Fleet Iron Works in Kent, supplied two locomotives, named *Fire Queen* and *Jenny Lind* respectively. The former is believed to have been the first

locomotive owned by Dinorwic Quarries, and was certainly one of the first in this part of Wales, as the Chester & Holyhead Railway was opened as far as Bangor only later in the year. It was probably delivered to Port Dinorwic by sea, and taken to the 4 ft.-gauge railhead behind the town by teams of horses.

Both locomotives were basically similar in appearance and dimensions, although detail differences become apparent on studying old prints. They were tender engines of the 0-4-0 arrangement, with 4 ft. 6 in. driving wheels spaced 12 ft. 0½ in. apart. This, combined with the low-pitched boiler and tall chimney, gave the engines a rather dated appearance even for 1848. *Fire Queen* had a wooden-lagged boiler and open footplate, whereas *Jenny Lind* had steel cladding and a somewhat primitive cab with tender weatherboard.

The cylinders, of 13 in. dia. × 22 in. stroke, were placed at an angle between the wheels



Exposed to full daylight for the first time since 1886, 4 ft.-gauge 0-4-0 "Fire Queen" of the Padarn Railway awaits the low-loader to take it away, while Mr. Iorwerth Jones of Penrhyn Castle Museum talks to an interested admirer

Photo: K. A. Jagers

Loading "Fire Queen" at Dinorwic Quarry for transport to Penrhyn Castle on December 16. Before the road vehicle could be manoeuvred into position, it had been necessary to clear the yard outside the shed of rubbish, and a high wall across the shed doorway had to be demolished



Photo: K. A. Jagers

and drove on to the rear axle; the valve gear was unusually operated via eccentrics on the front axle, the quadrants being mounted on the front of the firebox. The engines were unusual also in being of frameless construction, the wheels, cab footplate and front buffer beam being bolted directly on to the boiler. The effect of the expansion of the boiler when in steam would presumably alter the wheelbase, and it is not known how this was compensated for—it can only be assumed that there was sufficient play in the coupling-rod bearings to allow for the expansion. Water was fed to the boiler through mechanical pumps driven from the crossheads, and conventional clack valves: the supply was controlled by taps on the tender floor.

Both locomotives handled all the slate traffic on the seven-mile Padarn Railway from 1848 until the delivery of a new 0-6-0 tank engine, *Dinorwic*, works No. 302, from Hunslet of Leeds, in 1882. One of the pair was then retired, as was the other in 1886, when the second Hunslet engine, *Pandora*, was obtained. *Jenny Lind* was broken up in the latter year, and certain parts were retained in the quarry workshops, but *Fire Queen* was stored away in a former 2 ft.-gauge locomotive shed near the tunnel through to the brickworks—the shed was too small for her, and the chimney had to be removed to clear the entrance door!

The locomotive was cleaned and cared for

by quarry workmen in their spare time and, isolated in its shed, its existence was slowly forgotten except by those in close contact with the quarry. It was probably in this way that it escaped the scrap-metal drives during the two world wars. It was joined in the 1930s by several "velocity cars" used in earlier days by workmen travelling to and from the quarry, and later by permanent-way gangs. These were housed in an extension to the front of the shed, closed off by a slate wall which completely blocked rail access to the shed, thus creating a museum of quarry rolling stock together with models and other small items.

Thus preserved, the engine survived the second world war, and the shed was opened up for occasional visitors until several years ago, when the engine was purchased from the quarry company by Mr. John Smith on behalf of the Manifold Trust in London. Because of the difficulties of moving the engine, and the lack of a suitable home at the time, it was left at Dinorwic, and the closure and subsequent dismantling of the Padarn Railway in 1961/2 meant that it had outlasted its successors, which were unfortunately all cut up at Llanberis in 1963.

The locomotive, not having been moved for 83 years, might well have remained there for many years to come, had not the present decline in the roofing-slate industry brought about the demise of the quarry early in 1969. The com-

pany went into voluntary liquidation, which meant that all equipment including the remaining narrow-gauge engines and rolling-stock would be auctioned, and all other items were required to be removed from the premises. Thus it was that several years' negotiations to find a new home for *Fire Queen* were brought to fruition, and it was planned to move the engine to the National Trust Museum at Penrhyn Castle by the end of the year, where it would be exhibited alongside the old quarry directors' saloon acquired some time previously.

Much preparation for the move was required at both ends of the journey, and the Penrhyn Museum site was tackled first. During early November, the Penrhyn wagons, Dinorwic "Velocipede" and Nantlle Tramway exhibit were cleared away from the site to be set up elsewhere, and permanent Dinorwic Quarry 84 lb. per yd. rail in cast-iron chairs was laid; temporary rails (*ex-Penrhyn Railway* bullhead) were provided for the unloading of the engine.

At Dinorwic Quarry, the space between the tunnel and museum wall had become very overgrown, including several fully-grown trees. Numerous rusting oil drums also littered the yard. The Penrhyn museum's petrol truck was brought along and proved invaluable for clearance work, conveying mud, trees and slate rubbish to a tip across the quarry yard. Below all this was found a solid stone floor, which meant that no further work to provide a firm

support for the engine was necessary. The oil drums were stacked in the tunnel, and the dry slate wall—all 40 tons of it—was demolished by hand and carried away in the truck. All this work was carried out by the two National Trust employees of Penrhyn Castle, Iorwerth Jones, engineer and former Penrhyn Railway driver, and Vernon Davies, carpenter, assisted by the museum's "voluntary" workers, mainly from the University in Bangor. Temporary track was laid outside the shed, and by the beginning of December all was ready for *Fire Queen's* first public appearance since 1886, and its press and television debut.

An initial attempt to move the engine using a line attached to a Land-Rover met with minimal success, as the engine had seized solid. The only solution, therefore, was to dismantle the motion and remove cylinder and steam-chest covers to clean and oil all moving parts thoroughly. This done, the engine was re-assembled, and to our delight was found to roll quite freely up and down the track inside the shed.

The tender handbrake, which had also seized, was cleaned, and on the morning of Wednesday, December 10, the locomotive was pushed out of its shed complete with tender and nameplates, to be paraded before the press and t.v. cameras, together with the many enthusiasts who were at Dinorwic in connection with the forthcoming auction of the other railway



Before the removal of "Fire Queen", a four-wheel directors saloon from the Padarn Railway was taken from another shed at Dinorwic Quarry to Penrhyn Castle, where it will be exhibited with "Fire Queen"

Photo: R. M. E. Brown

Journey's end: "Fire Queen" in the courtyard of Penrhyn Castle Museum, ready for unloading. The locomotive is to be restored to its original livery of Brunswick green, with Indian red splashers and tender frames, and polished brasswork

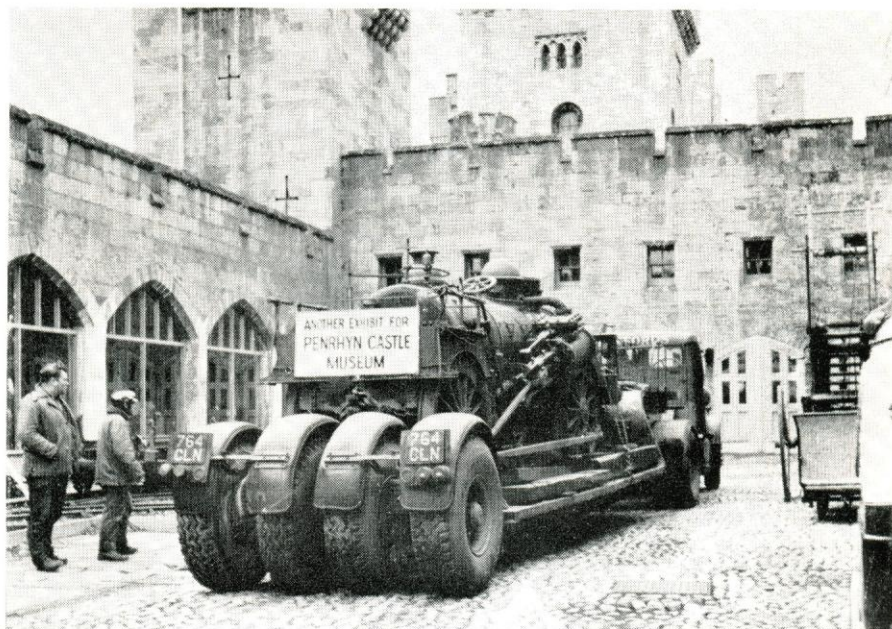


Photo: K. A. Jagers

equipment. In the evening the locomotive was returned to the shed to await the arrival of the Pickfords low-loader the following week.

At the quarry auction on the Saturday, Mr. W. R. Parry, curator of the National Trust museum, bought the spare safety-valve cover and original steam-dome cover from *Jenny Lind*, which will probably replace the damaged ones on *Fire Queen* when restoration is tackled, as well as other relics for the museum, including a four-wheel pedal cycle for the 4 ft.-gauge.

The Pickfords lorry and crew of two arrived at noon on the Tuesday, and after the difficult manoeuvre into the former walled compound, loading commenced immediately, the engine being winched up a ramp of light rails onto the lorry platform. As darkness fell, it was decided to move the valuable relic into the main works area, where it could be locked away safely for the night. In reversing over the rough ground outside the shed, the locomotive, which had not yet been chained down, jumped the rails and came to rest heavily on the lorry, bending the platform under its front driving wheels. Happily, the engine itself survives in one piece!

In the morning, the lorry and its load, after re-railing and securing down, made the rather uneventful journey to Bangor in a snowstorm, travelling via Llanrug and Bethel. The engine was off-loaded onto the temporary track at Penrhyn Castle by the evening of Wednesday, December 17. On Thursday morning the operation was repeated with the tender, and several more days were spent in sliding firstly the engine then the tender on skates across to the permanent track, so that the directors' saloon could be moved into its final position behind

the tender from its temporary resting-place outside in the car park. This was accomplished also not without incident, as the *Fire Queen* took matters into her own hands during the sliding process, and rammed the wall, demonstrating the superb resilience of the leather-clad buffers: once again, the engine was none the worse for its battering.

The question of restoration work on the engine is still under discussion, and it may be carried out by contractors, as the museum's voluntary staff is already heavily committed on the restoration of the other exhibits; Iorwerth Jones is rebuilding the 9½ in.-gauge Webb compound *Orion* to working order, Ian Jones and Keith "Scottie" Walter are working on the Beckton Gasworks well-tank, with ourselves on "Kettering Furnaces No. 3".

If it is considered worthwhile, *Fire Queen's* boiler will be examined by the most technically-advanced means possible with a view to restoration to full working order. It must be physically strong to act *in lieu* of frames, but is of a very early design incorporating joints on the very corners of the firebox, and the working pressure was only 60 lb. per sq. in. when new.

However, one thing is certain; in a few years *Fire Queen* will be returned to her original Victorian livery, resplendent in Brunswick green with Indian red splashers and tender frames, her brasswork gleaming as in former days.

Penrhyn Museum will be open to the public during 1970 from April to October, on three weekday afternoons "out of season" and daily during July and August.