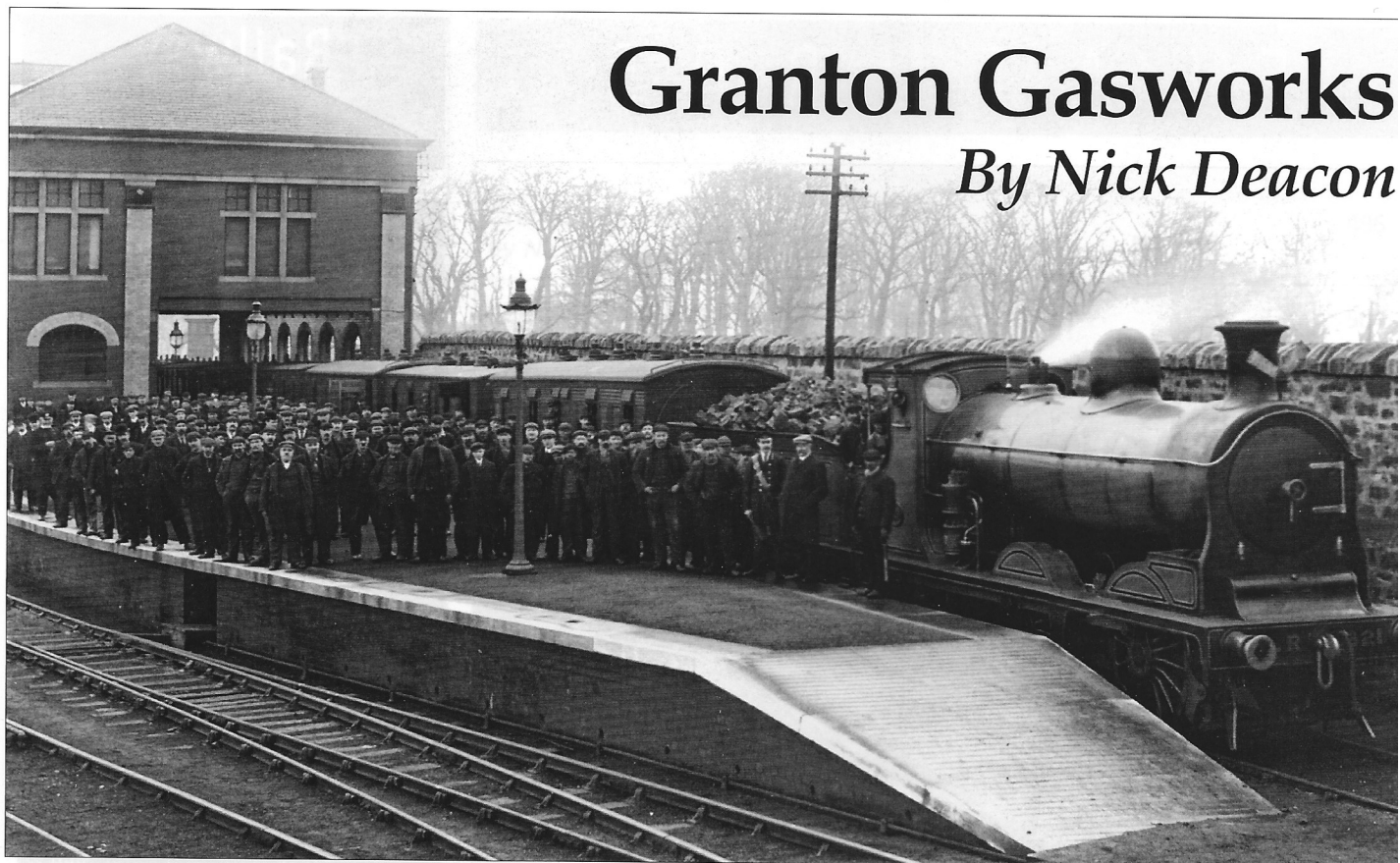


# Granton Gasworks

By Nick Deacon



The gala opening of the works was on 27<sup>th</sup> February 1903 and an assembly of staff is posed on the station platform with CR Class 8 0-6-0 No.821 providing the loco interest heading a train of elderly 4-wheeled stock. Although the works were partially operational from at least October 1902 it is unlikely that the station building was complete at that time. The CR semaphore route indicator in front of the chimney is set for 'Trains to and from Leith' originating or terminating in Edinburgh. The loco became BR No.57559 and survived until October 1961 when it was withdrawn from Dalry Road (64C) shed.

By the 1890s the existing gasworks supplying Edinburgh (New Street, Baltic Street, Leith and Pipe Street, Portobello) were approaching full capacity and urgent consideration for expansion was needed. The Edinburgh and Portobello sites offered no flexibility and although a site at the east end of Leith docks was considered, room for future expansion there was thought not sufficient. The chief inducement for locating the new gasworks on a site to the west of Granton was proximity to its harbour, which had first opened in 1838 on land owned by the 5th Duke of Buccleuch. The added proximity of the Granton branch of the Caledonian Railway (CR) opened in 1861 plus a connection to the North British Railway (NBR) to the east also helped with a decision by the Edinburgh & Leith Gas Commissioners to purchase 106 acres from the Caroline Park House estate – this time from the 6<sup>th</sup> Duke of Buccleuch for £124,000. An additional area of foreshore was also to be reclaimed and included. The accessibility of the harbour also ensured that coal supplies could still be shipped in if the railways happened to be on strike. The Commissioners considered building their own bespoke harbour at Granton, but this did not go ahead. The completion of the new works would enable the transfer of gas production from the Edinburgh, Portobello and Leith works although at least one gasholder would be retained at Canonmills, and the New Street works would still be

used for winter operations. In February 1897 Walter Ralph Herring, was tempted away from his position of engineer at the Huddersfield Corporation Gasworks and appointed chief engineer for Granton with a salary of £900pa – a post he retained until his resignation in 1910 although he was retained as a consultant. The Edinburgh & Leith Corporations Gas Bill (with amendments) was passed in Parliament in May 1898 but prior to this Herring also had a big say in deciding the site for the new gasworks and work started on clearing the site for construction in October 1898. He was also responsible for the design and function of all of the pre-1910 buildings on the site but was determined to offer something that was visually impressive as well. Drawing from his previous architectural training influenced by late Victorian classicism, many of the works buildings erected in two stages between 1899-1902 and 1903-1910 were seen to reflect this and with additional planting of many trees on site these attributes offered some visual relief to the disagreeable necessity the gasworks imposed on the environment. He even designed the works gas coronets with Scottish thistle surrounds and kept them burning at night to add to the effect. *The Scotsman* in its numerous issues describing progress of the works covered the ceremonial opening that took place on 27<sup>th</sup> February 1903, which saw a combination of Mrs Steel, the wife of the Lord Provost of Edinburgh, opening the Exhauster House with a gold key, and Mrs

Mackie, the wife of the Provost of Leith, unveiling a bronze tablet to commemorate the laying of the foundation stone. However, operations had already started during the previous October after a formal opening by the same two ladies. In describing some of the minutiae of the gas production process, which would eventually be capable of producing in excess of 6million cubic feet per day, *The Scotsman* also included the internal railway system and its operation. This, it stated, '*...has been carefully planned. The traffic passes in front of the office and over double weighbridges so that it is directly under the eye of those responsible for it. Then it is marshalled upon a group of sidings in immediate contact with the North British and Caledonian Railways, from which point the full waggons of coal are drawn and delivered to the Retort House one direction, the empties continuing forward in the same direction, ready for loading with coke and refuse. By this means the waggons moved in a circle, arriving loaded with one material, and are despatched with the solid residue of that material gas and volatile matter alone having been taken from it. By such a system it is quite possible with a train load of coal arriving at the Works at say, seven o'clock in the morning for the same waggons to be despatched with the produce – coke etc, resulting from the carbonisation of that coal – by one or two in the afternoon. Two locomotive engines are engaged night and day manipulating the traffic within the works. A light railway is used for the removal of ashes, coke dust, refuse etc. Admirable arrangements have been made for the comfort of the men. Arriving by special trains, they reach the*

private railway on the eastern boundary of the Works, pass through turnstiles, which record the numbers for the information of the railway company, and by a special device they enter their own time of arrival. In addition to the standard gauge lines, the works also had an internal system of 2ft gauge lines using steam locos to remove waste from the production process and other by-products. The 0-4-0 locos with outside 7x10in cylinders and 2ft diameter wheels were all built by Andrew Barclay, were low in height and cabless thus allowing them to pass under the gas retorts. The first of these, Works No.988, was delivered new from Barclays in 1903 and named *Esme* and in 1905 a second loco, Works No.1051 (also new), arrived and was named *Ralph*.

Somewhat remarkably for a private enterprise, the Edinburgh & Leith Gas Commissioners also equipped the works with an attractive and imposing station, for its workforce was to be conveyed on their behalf by CR locomotives and rolling stock. The station was conveniently located a short distance from the works connection to the CR Granton branch at Pilton Junction West. The station comprised a single island platform with its eastern side extended underneath a two-storey red brick building with a hipped slate roof. Style-wise, the building was 'lifted' architecturally by the addition of baroque classical pilasters in yellow/white brick, large mullioned windows at the upper floor, round-topped

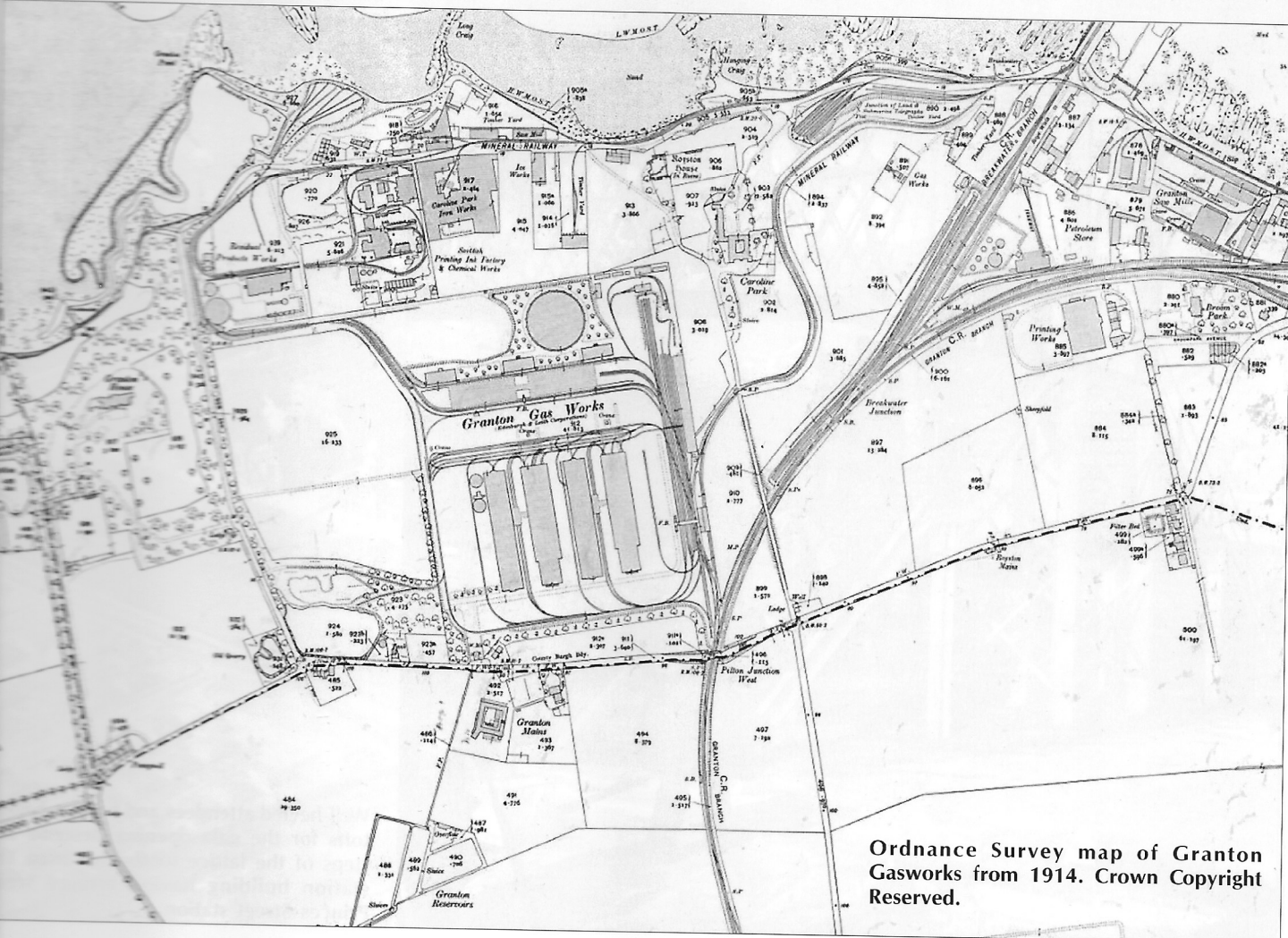
below, and an open arcade with rounded arches at platform level looking out over open land to the east. The station entrance was by a lattice footbridge passing over the works sidings and into the upper storey of the building set beneath a Jacobean-style dormer with a ball finial, weather vane and clock. The building contained a time office and turnstiles, bathrooms, lavatories, and lockers for staff to store their off-duty apparel. Until the 1923 Grouping (but possibly into the LMS era) staff were able to travel on the CR special trains free of charge from Princes Street station. A short distance to the north of the station building and just beyond the single mineral line passing through the perimeter wall to Granton Docks a lengthy one-road engine shed with an associated workshop facility was provided and built in a similar style to the station building. Both shed and workshop were housed under a double hipped slate roof with round-topped arched entrances.

*The Scotsman*, in its lengthy opening day coverage of 27 February 1903 was also able to give further detail on the ergonomics of the railway operation within the works: *The coal is delivered in waggons upon two lines to a traversing 6ft steel belt conveyor with hopper sides sunk beneath the railway lines. The waggon tipping arrangements consist of a hydraulic ram with a forked head rising from between the rails, catching under the hind axle of the waggon and lifting one end to such an angle as to induce its entire contents to fall through the end door opening. In the event*

*of the bottom door waggons being used or waggons of the modern forty-ton type which are also of the self-discharging description, with bottom doors, the waggons are merely transported over the hoppers, the bottom door withdrawn, and the contents discharged on the steel belt. This portion of the apparatus is capable of handling 250 tons of coal per hour, the steel belt forming the bottom of the hoppers being made to traverse at varying rates of speed in proportion to the requirements of the Retort House.*

The 'Residual Products Works' situated closer to the coast at the north-west extremity of the site and constructed at the same time was also connected by sidings spurred off from the main site. These sidings also had connections to other industries such as the Caroline Park Iron Works, The Scottish Printing Ink Factory and Chemical Works, and timber and sawmilling businesses running back towards Granton Harbour. As well as exchange sidings within the gasworks curtilage, sidings for incoming and outgoing wagons were also established on the CR Granton branch at Breakwater Junction where the short Breakwater line branched off to serve the Western Wharf of Granton Harbour. Obviously large quantities of coal were required for works consumption which, by 1926, were running at around 200,000 tons per annum and by 1960 had risen to around 285,000 tons.

The final cost of the works was estimated to be around £575,000 (around £77m in today's money) but Herring considered this



Ordnance Survey map of Granton Gasworks from 1914. Crown Copyright Reserved.

to be satisfactory when put against savings accrued from the disposal of other sites and the consolidation of the operation. An extra 1d added per 1000cu.ft. to the consumer rate would also bring in extra revenue of around £8000 per annum. However, by 1906 with additions and enlargements since 1903 costs had risen to around £770,000.

Ownership of the works passed to the Edinburgh Corporation from 1920 and by that date the loco stock acquired since the start of operations had become an Andrew Barclay enclave although it appears there had been a couple of standard gauge Alexander Chaplin 0-4-0VBTs in the early days and later on a pair of Hawthorn Leslie 0-4-0STs. The Andrew Barclay 2ft gauge 0-4-0 locos had first appeared in 1903 and 1905 with the arrival of *Esme* and *Ralph* and these two were supplemented in 1925 and 1933 with the arrival of Works Nos.1871 and 1999. The last two never acquired names as it appeared this policy was discontinued after the Edinburgh Corporation took over. Thus *Esme* and *Ralph* became Nos. 5 and 8 and the other two Nos. 9 and 12 respectively with the latter being the last allocated number of the sequence. The remaining numbers 1, 2, 3, 4, 6, 7, 10 and 11 were carried at various times by standard gauge 0-4-0ST Barclay locos plus others. Of the four 2ft gauge locos, No.5

was sold to Mr J. H. Farr, the President of the Scottish Traction Engine Society, in 1961 and after a period of display at the Biggar Gas Museum was later acquired by the National Museum of Scotland but is not currently on display. No.8 was scrapped c.1930, No.12 in December 1963, but No.9 was rescued by Dr. R.P. Jack in 1966 and later acquired by Mr N. Williams. The loco is now fully restored with the name *Jack* and is working on the 2ft gauge Leighton Buzzard Railway. There is a possibility that the boiler of No.8 was bequeathed to No.9 after the former was withdrawn. Apparently Dr. Jack also acquired a 2ft gauge Hudson Hunslet diesel (Works No.2927), which was supplied to the gasworks in 1944 and this may have been the last active loco on the 2ft gauge system when this was abandoned in 1965. However, although surviving for some years the loco is now believed to have been scrapped. Of the standard gauge Barclay 0-4-0ST locos formerly used at Granton only Barclay 0-4-0ST No.10 (Works No.1890), which was delivered new in 1926, has survived. This was acquired by the Strathspey Railway in August 1973, restored for use on the Lochty Private Railway and since 2016 is now domiciled and in steam on the Fife Heritage Railway at Methil. Available information on other Barclay 0-4-0STs

indicate No.6 (Works No.1967) was delivered new in 1935 and scrapped or sold in 1965, No.7 (Works No.1036) was delivered new in 1904 and scrapped in 1964, and No.11 (Works No.1954) was delivered new in 1928 and scrapped in 1964. Further information on other Granton locos is welcomed.

The works went through years of change and alterations to the infrastructure the most significant of these being the construction of Gasholder No.2 in 1930 and after passing to the Scottish Gas Board in 1949 Gasholder No.3 was added in 1966. This was the last major addition prior to the conversion of the works during the 1960s to natural gas piped from the North Sea via Grangemouth. The railway station had closed to passengers in 1942. By 1968 steam power had finished and in 1973 the railway system was abandoned in the same year the works became part of British Gas. Production finally ceased in 1987 although the three gasholders were retained for storage with the oldest, No.1, being used until 2001. This structure is now listed and provides a theme for creative arts sponsored by the City of Edinburgh Council and Edinburgh College. Fortunately the unique railway station has also survived with a shortened platform and is now Class B listed and assured of a place within the Edinburgh waterfront regeneration scheme. However, it inevitably looks incongruous now that it sits alone surrounded by 21<sup>st</sup> Century modernity!

*Sources consulted:*

*Granton History website. Contemporary newspaper reportage. Disused Station Site. With thanks to Chris Fisher, IRS, for material gleaned from the 1976 Scottish Handbook.*



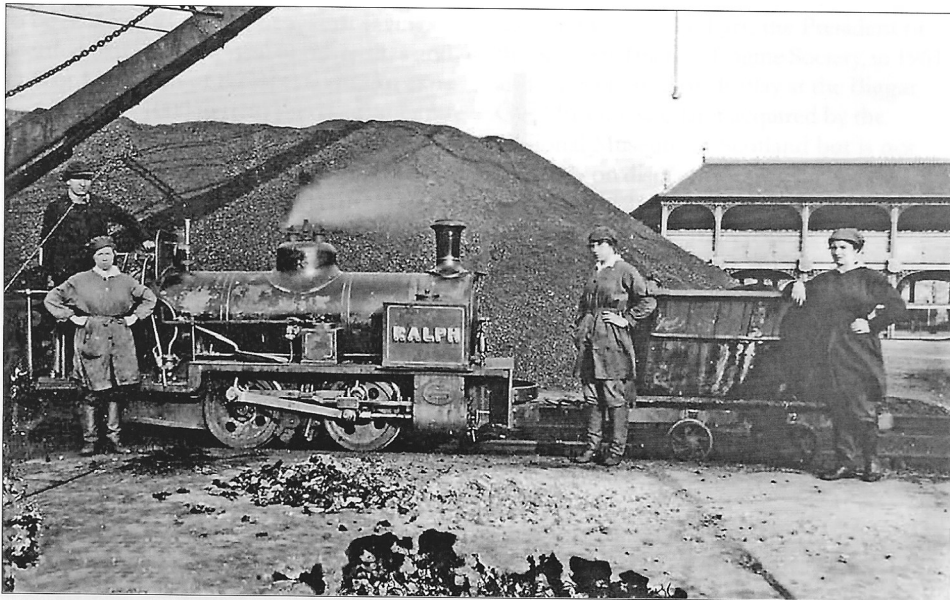
Well-heeled attendees and bowler-hatted toffs for the gala opening descend the steps of the lattice footbridge from the station building having arrived from Princes Street station.



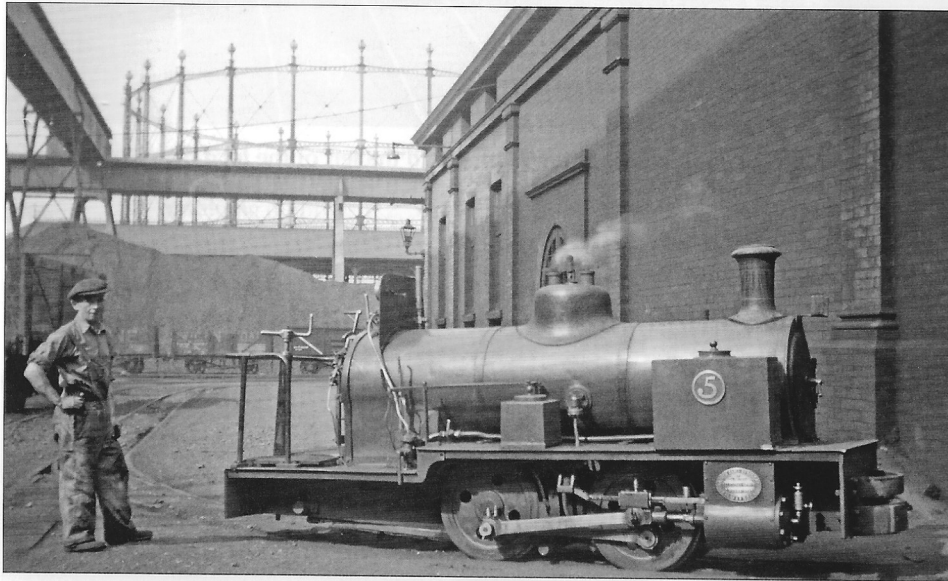
A later view of the station building looking due north with the CR Granton line on the right and to the left of the loco marshalling a rake of loaded coal wagons, sidings run off to the main gasworks site. Just visible beyond the station is the break in the perimeter wall through which the line to Granton Docks passed.

A c.1950s aerial view of the gasworks site featuring gasholders 1 and 2. Exchange sidings are busy with wagons inside the site and (with the eye of faith!) locos are just visible at the engine shed just beyond the station building. The Granton branch passes obliquely across the bottom of the photograph and the line running out from the main gasworks system to the Residual Products Works at top left is also visible.

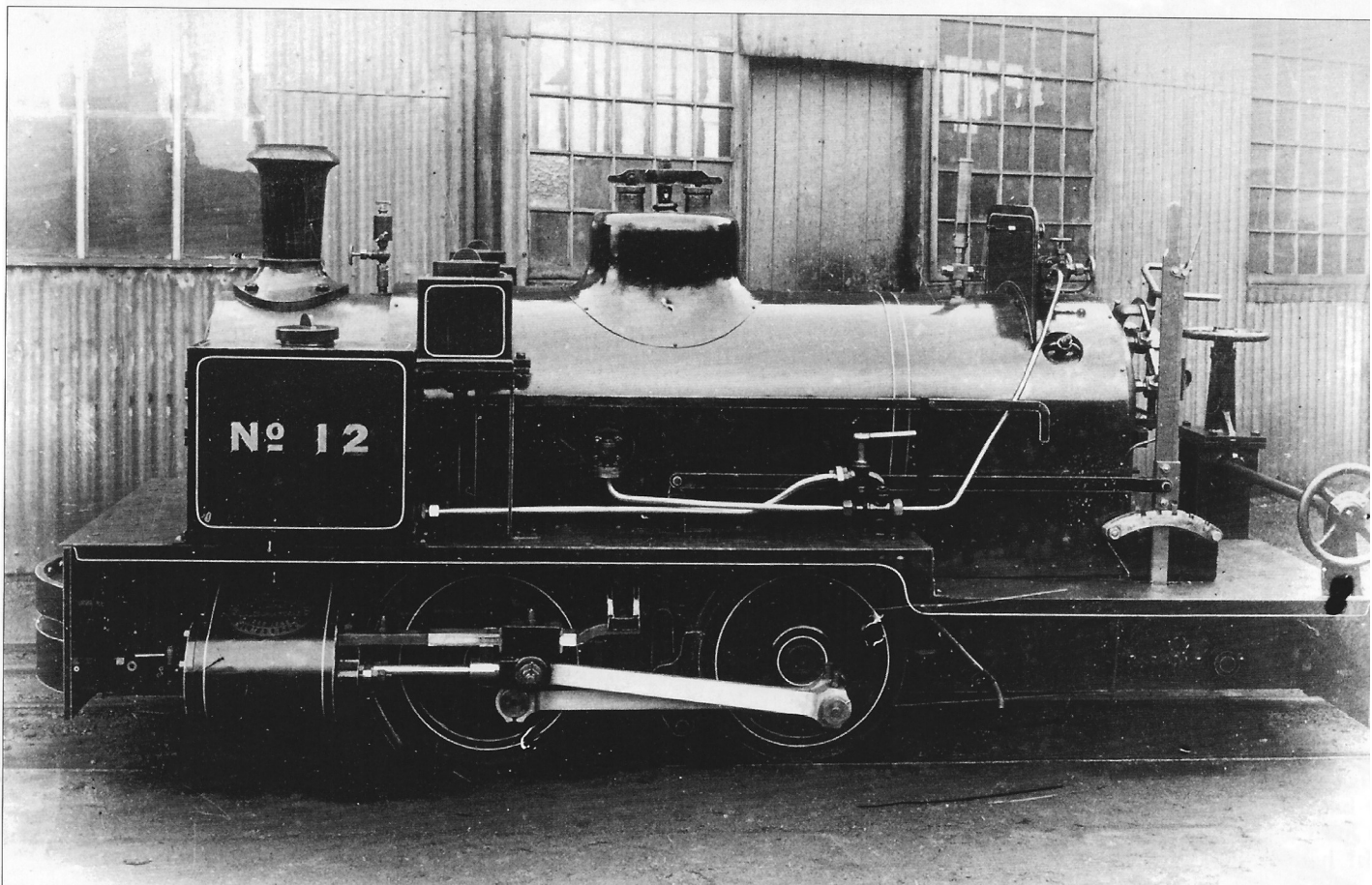




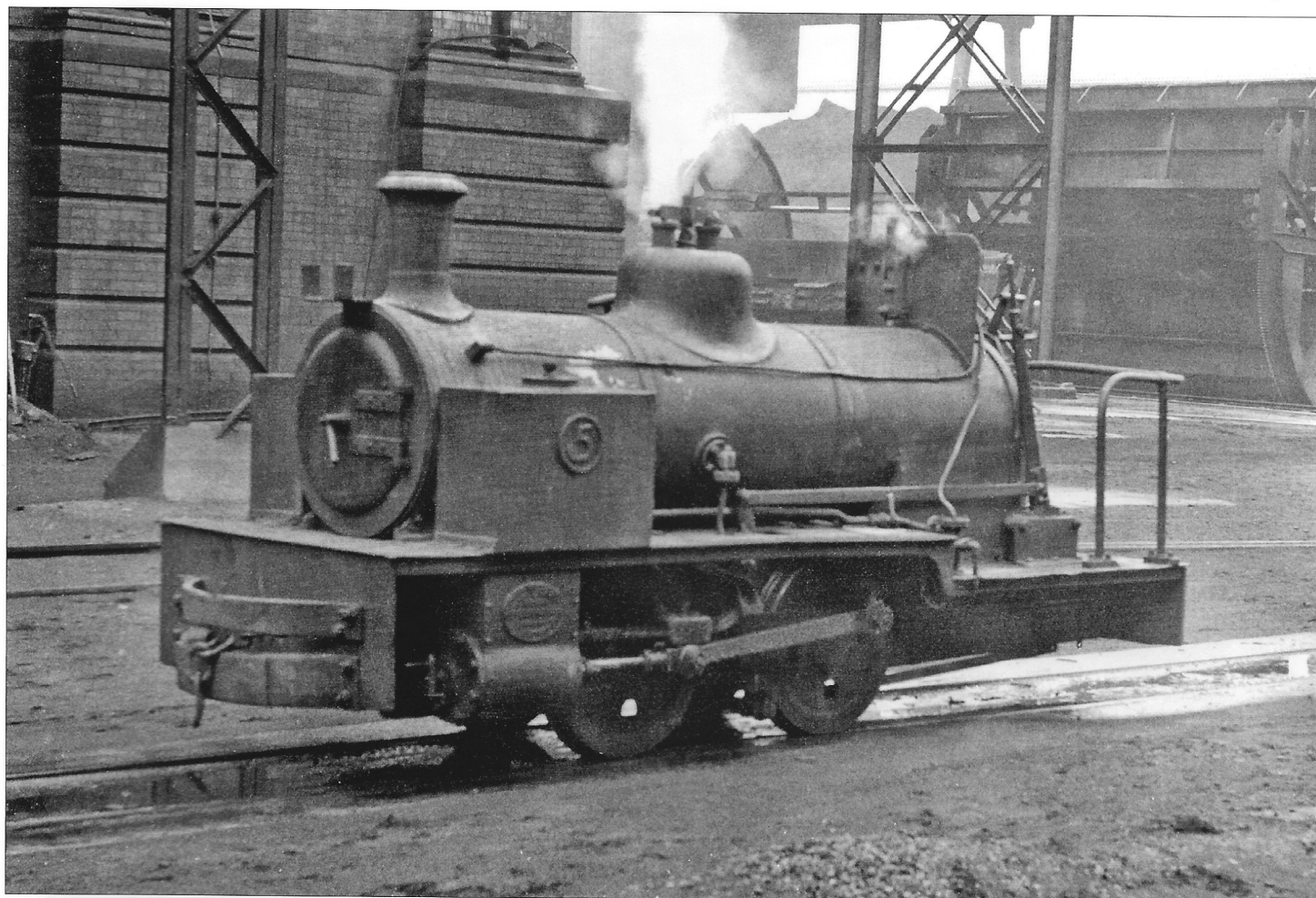
*Top. 'They also served' - a Great War period view of Ralph at work. Replacing men serving with the colours, a squad of doughty appropriately attired Amazons pause during their shift to stare somewhat balefully at the camera. Magnificent!*



*Middle. A post-1920 view of an immaculate Andrew Barclay 2ft gauge 0-6-0 No. 5 (formerly Esme) percolating with an equally diminutive member of staff in attendance within the bowels of the gasworks. To the right the brickwork ornamentation bears testimony to Mr Herring's careful attention to detail. (Photo Kenneth G. Williamson, Hamish Stevenson)*



*Bottom. A sparkling full-liveried No. 12 seen almost certainly soon after delivery from Barclay's works at Kilmarnock in 1919. (Photo Kenneth G. Williamson, cty. Hamish Stevenson)*



With just two years left of her operational career and now looking a tad dowdy No.5 is seen on 24<sup>th</sup> September 1959 still busily engaged somewhere within the gasworks site. (Photo Kenneth G. Williamson, cty. Hamish Stevenson)

Andrew Barclay 0-6-0ST No.6 (Works No.1967), now bereft of its numberplate, is seen still faintly bearing its pre-1949 Edinburgh Corporation Gas Department legend suggesting a 1950s date. No.6 survived until 1965 when it was either sold off to a new owner or scrapped. Further detail is unknown at present.





On 11<sup>th</sup> June 1960 Barclays Nos. 7 and 10 are at work with the leading loco (probably No.7) lacking a front dumb buffer. Perhaps detail by then ceased to matter! If correct, at the rear is No.10, the escapee, which is currently lodged with the Fife Heritage Rai at Methil. (Photo Kenneth G. Williamson, cty. Hamish Stevenson)

A nice shot taken by the engine shed on 18<sup>th</sup> May 1956 and featuring No.7 with the loco still bearing its pre-1949 ownership leg. The loco was said to have been rebuilt in 1952 and it survived until withdrawn and scrapped in 1964. To the right is the ramp of station platform while to the left and above the other unidentified loco is one of the entrance columns marking the break in perimeter wall through which passed the line to Granton Harbour. (Transport Treasury)





Outside the works yard site on 16<sup>th</sup> May 1956 ex-NBR Reid Class A (LNER N15) 0-6-2T No.69187 dating from 1920 shunts loaded mineral wagons. As a St Margarets (64A) loco for many years it spent a good deal of its later career employed on the lines around Leith and Granton but was at Dalry Road shed (64C) when withdrawn in December 1959. (*Transport Treasury*)

On 4<sup>th</sup> June 1958 Fowler 2F 0-6-0T No.47162 heads a train of former private owner wagons loaded with coke from Granton gasworks to Granton Harbour. The train is heading towards the coast and passing Breakwater Junction and will offload there. The loco was one of ten built at Derby by the LMS between 1928 to 1929 with five of the number eventually ending up at Scottish sheds for piloting and shunting work. No.47162 was based at St Margarets shed and lasted on local work in the Leith and Granton areas until withdrawn in December 1959.

