

NORTHERN ENGLAND

CHESHIRE

THELWALL (SJ 65 88)

On the left bank of the Mersey at Woolston Weir (SH 654 875), 1 km downstream from Thelwall viaduct, which carries the M6 motorway over the river and the Manchester Ship Canal (constructed 1887-94) (Corbridge 1979). There are no remains and the site is on an isolated tract of land between the canal and river embankments and the viaduct.

Information on the early history of the mills is contained in records of the Stanton family of Snelston Hall, Derbyshire (DRO: D157m/3554). The Stanton family operated the mills until they were destroyed by an explosion in 1855 (Corbridge 1979).

Chronology

1758- Works built by John Stanton, Sir Ellis and Robert Cunliffe and John.

19thC Stanton family: John, James, James & Son, James (Gore's *Directory of Liverpool*).

1855 Explosion followed by closure.

1859 James Stanton no longer listed in Liverpool Directory.

DERBYSHIRE

FERNILEE (SK 01 76)

On the River Goyt near the village of Fernilee, 8 km north-west of Buxton, but now submerged beneath Fernilee Reservoir. A building from the factory survives at Windgather Youth Hostel (SJ 994 786) (L Draper pers comm.)

The factory was established by Thomas Williamson in 1801 (Smith [1979]). Derbyshire directories show that it remained in the Williamson family until the late 1880s. It was then acquired by the Chilworth Gunpowder Company Limited whose original factory was at CHILWORTH in Surrey (Chilworth Gunpowder Company Annual Report 1889). The works employed 120 men just before the First World War (Peak National Park 1977).

Chronology

1801 Licence granted to Thomas Williamson.

1846 Thomas Williamson and Joseph C Buxton proprietors (Smith [1979]).

1871 James Williamson of Fernilee Hall, gunpowder manufacturer, listed in census return.

1876 Continuing Certificate no. 15.

c.1888 Acquired by Chilworth Gunpowder Company.

1918 Explosives Trades.

1920 Closed (Patterson 1986).

1938 Fernilee dam built (Peak National Park 1977).

Additions 2005

Explosives Inspectorate reports in *Parliamentary Papers*

1888, 21 March (1888, xxvi, 325). Gunpowder and blasting cartridges.

The gunpowder mills of Fernilee, by Joyce Winfield, published by the author, Whaley Bridge, 1996.

WESTMORLAND AND FURNESS

The gunpowder mills of the historic county of Westmorland and the Furness district of Lancashire, which are now in Cumbria, form a distinct group and are therefore listed under a joint heading. The industry was established in the Lake Counties from 1760 onwards and continued until the 1930s. It was primarily concerned with the manufacture of blasting powder and Quaker entrepreneurs were involved in the early stages. Most of the sites are now used for holiday accommodation. There are two published studies of the mills and the following accounts are based largely on these (Wilson 1964; Marshall & Davies-Shiel 1977).

Additions 2005-

Since 1988 several site surveys have been carried out by RCHME/ English Heritage. These are listed under individual sites.

A study of the economic history of the gunpowder industry in south Lakeland has been made by Robert Vickers (2003).

BASSINGILL (SD 51 87)

On the River Kent, 800 m downstream from the site of OLD SEDGWICK. Traces of wheel pits can be seen south of Old Force Bridge on the east bank (visited 1986). There was a head of water of 10 ft (3 m) and originally there were two water wheels. In later years one large water wheel drove six incorporating mills (Wilson 1964).

The plant consisted only of incorporating mills, which were built as an extension to OLD SEDGWICK. They were retained when the proprietors, WH Wakefield & Company, moved their main factory from Sedgwick to GATEBECK in 1852.

Chronology

1790 Established by John Wakefield.

1876 Continuing Certificate no. 13.

1918- Explosives Trades, Nobel, ICI.

1935 Closed (Patterson 1986).

Additions 2005-

A survey of the site has been carried out by English Heritage (Hunt & Goodall 2002).

Scheduled Monument: National Number SD 58 NW 35

National Monuments Record Report: NMR Number SD 58 NW 35

BLACKBECK (SD 34 86)

Near the village of Bouth, 4 km west-south-west of Newby Bridge. The site is now occupied by a caravan park which is approached by a long lane on the line of a former railway track. The works' office and weigh house stand at the entrance to the site. The mills were steam driven from the beginning and there are remains of the brick-lined tunnel, which carried smoke from the engine house to a chimney stack on the fell side (visited 1985).

The mills were established in 1861 by F.C. Dickson & Company. They produced blasting powder for home and foreign consumption (*Rise and progress*, 365) and in particular supplied quarries in the Peak District of Derbyshire and North Wales (Wilson 1964).

Chronology

1860 Licenced (Patterson 1986); FC Dickson & Company (Wilson 1964).

1876 Continuing certificate no. 40.

1918-Explosives Trades, Nobel, ICI.

1928 Closed (Patterson 1986).

Additions 2005-

Explosives Inspectorate reports in *Parliamentary Papers*

1881, 19 March (1881, xxiv, 163).

1884, 26 July (1884, xxvii, 665).

1898, 19 January (1898, xiii, 607).

A survey of the site has been carried out by English Heritage (Dunn *et al* 2005).

ELTERWATER (NY 33 05)

In Great Langdale, immediately above the village of Elterwater, 6 km west of Ambleside. The site is privately owned, having been developed by the Langdale Partnership as a holiday resort with properties sold on a time-share basis. It is entered from the B5343 road.

The factory was triangular in shape and covered about 20 acres. A leat from Great Langdale Beck fell by about 40 ft (13 m) in several stages and divided at the top of the site into an intricate system of channels and mill ponds. The original owner built a dam for controlled storage of water at Stickle Tarn, 4 km upstream from the mills (NY 288 076). The watercourses form a major landscape feature of the development, which comprises newly built lodges and converted original stone buildings. Several edge runners and bedstones of incorporating mills survive and a mortar, which was used for proving gunpowder, is displayed in the restaurant. It is a standard 8-inch (20cm mortar of the Napoleonic Wars (information from CJN Trollope).

The factory supplied blasting powder to the Langdale slate quarries and Coniston copper mines and exported powder to West Africa.

Chronology

1824 Licence obtained by David Huddleston, a retired banker; Elterwater Gunpowder Company formed (Wilson 1964; Marshall & Davies-Shiel 1977).

1876 Continuing Certificate no. 34.

1918- Explosives Trades, Nobel, ICI.

1928 Closed (Patterson 1986).

Additions 2005-

Explosives Inspectorate reports in *Parliamentary Papers*

1878, 29 November (1878-9, xvi, 397).

A charcoal cylinder from the upper site at GATEBECK was acquired in 2005 and erected beside a group of edge runner stones near the water wheel pit facing the hotel.

A survey of the site has been carried out by English Heritage (Jecock *et al* 2003).

A 12-page leaflet has been produced by Langdale Leisure for distribution to time-share owners (Langdale Leisure 2004).

GATEBECK. (SD 55 86)

Near the village of Gatebeck, 8 km south-south-east of Kendal, on the Peasey Beck. The site is now occupied by a holiday caravan park. The principal features of interest are the charcoal cylinders or retorts which have been set up as gate posts at the entrances to the caravan site (SD 543 853) and the depot at the north end of the former factory (SD 549 858) (visited 1985).

The mills were opened in 1852 by W.H. Wakefield & Company who transferred their main manufactory here from OLD SEDGWICK, but retained their incorporating mills at BASSINGILL. Power was provided by water wheels, steam engines and water turbines.

The mills took advantage of the reservoir at the head of the stream which had been constructed in 1820 to feed the Kendal & Lancaster Canal. A head of water of 50 ft (15 m) was developed in four stages. In 1895 a dam was built on Fall Beck, a tributary of Peasey Beck, and this provided water under pressure to hydraulic pumps and later Pelton wheels. The mills had the earliest plant in England for manufacturing saltpetre from sodium nitrate, which was set up in 1864 (Wilson 1964).

Chronology

1850 Licence granted to WH Wakefield & Company.

1852 Opened.

1876 Continuing Certificate no. 19.

1882 Took over the Lowwood Gunpowder Company Limited (*Rise and progress*, 415).

1918- Explosives Trades, Nobel, ICI.

1936 Closed Patterson 1986).

Additions 2005-

Explosives Inspectorate reports in *Parliamentary Papers*

1881, 21 July (1881, xxiv, 211).

1878, 29 November (1878-9, xvi, 397).

A survey of the site has been carried out by English Heritage (Jecock et al, 2009).

A charcoal cylinder used as a gatepost at the north site was taken to the Langdale Estate for display in 2005 (see ELTERWATER above).

Scheduled Monument: National Number 27806

National Monuments Record Report: NMR Number SD 58 NW 34

LOWWOOD (SD 35 84)

Near the village of Haverthwaite in the Furness district of Lancashire. The mills were on the east bank of the River Leven which flows out of Lake Windermere. The manufacturing area is on private land and is very overgrown with decayed walls and scattered edge runner stones. The mill leat and a stove and adjacent boiler house can be seen from a public bridleway from SD 347 836. The imposing clock tower and adjoining saltpetre and sulphur refining houses in the centre of Lowwood village are occupied by modern businesses. The nearby stable block and charcoal store and a more distant magazine have been converted into dwellings (visited 1987). The works tramway was connected to Haverthwaite Station on the Lakeside branch of the Furness Railway (1869) which is operated as an amenity. Two surviving tramway vans from the gunpowder works have been rescued by the railway preservation society (Lister 1987).

Lowwood is the only gunpowder factory in Cumbria from which business records survive (LRO D.D.Lo.). These cover the period 1798 - 1846. Barrel stencils found on the premises indicate an extensive export trade (Wilson 1964; Marshall & Davies-Shiel 1977). The mills were established primarily to supply 'Africa' powder for export through the slave trade but later produced blasting, sporting and military powders (Palmer 1970). The Lowwood Gunpowder Company later became part of W H Wakefield & Company of GATEBECK (*Rise and Progress*, 415).

Chronology

1798 Licence granted to Mr King of Finsthwaite, Mr Wilson of Rigmaden and Mr Daye Barker.

1799 Daye Barker & Company.

1863 Lowwood Gunpowder Company Limited.

1876 Continuing Certificate no. 23.

1882 Absorbed into WH Wakefield & Company of Gatebeck.

1918- Explosives Trades, Nobel, ICI.

1935 Closed (Patterson 1986).

Additions 2005-

Explosives Inspectorate reports in *Parliamentary Papers*

1887, 6 September (1887, xvii, 473).

Alice Palmer's thesis (1970) was reprinted by the Gunpowder Mills Study Group in 1998.

A survey of the site has been carried out by English Heritage (Jecock *et al* 2005).

Scheduled Monument: National Number 27805

National Monuments Record Report: NMR Number SD 38 SW 26; NMR Unique Identifier 1025660.

NEW SEDGWICK (SD 51 88)

The site is 5 km south of Kendal, on the west bank of the River Kent, opposite and immediately upstream from that of OLD SEDGWICK. It is owned by the National Trust and is occupied by a holiday caravan park. A timber weir was constructed across the river upstream and a long leat built of dressed stone carried water to a group of six incorporating mills. These were powered by a water wheel of 36 ft (11 m) diameter, which worked with a head of 20 ft (6 m). Several smaller water wheels served other process buildings between the leat and the river. There were also five small water turbines by Gilbert Gilkes of Kendal. The large wheel pit survives together with traces of buildings, mounds and tramway tracks.¹ 3 The factory was established in 1858. It was taken over by a Manchester syndicate in the 1860s. Later Mr Henry Swinglehurst of Hincaster bought out the other partners and traded as the Sedgwick Gunpowder Company.³

Chronology

1857 Licensed

1858 Mills opened

1864 Sedgwick Gunpowder Company

1876 Continuing Certificate no. 33

1918 Explosives Trades, Nobel, ICI

1935 Closed (Patterson 1986).

Additions 2005-

Explosives Inspectorate reports in *Parliamentary Papers*
1883, 12 April (1883, xix, 285).

A survey of the site has been carried out by English Heritage (Dunn *et al* 2003).

Scheduled Monument: National Number 27807

National Monuments Record Report: NMR Number SD 58 NW 33; Unique Identifier 1074024

OLD SEDGWICK (SD 51 87)

On the east bank of the River Kent, 5 km south of Kendal, immediately downstream from the site of New Sedgwick on the opposite bank. The site is now occupied by houses and no traces of the mills survive (visited 1985).

The mills were the first in the Lake counties and were established on the site of an earlier corn mill by John Wakefield, a member of a Kendal Quaker family, in 1764 (Wilson 1964). They were built for the manufacture of blasting powder but Wakefield was disowned by the Society of Friends for supplying powder for military use (*Westmorland Gazette*, letter 12 September 1986). The site was restricted in area and the firm expanded first by building extra plant nearby at BASSINGILL and later by moving their main factory to GATEBECK.

1764 Mills established by John Wakefield
1790 New incorporating mills built at Bassingill
1850 Closed and removed to Gatebeck

Additions 2005-

A survey of the site has been carried out by English Heritage (Jecock & Dunn 2002).

YORKSHIRE

Additional Site

ALLERSTON (SE 878 830)

Remains of a 17th century gunpowder works at the northern end of the village of Allerston were identified from structural remains and the evidence of large quantities of roll sulphur and charcoal found during excavation of a medieval manorial centre.

The mill was built for the production of gunpowder during the Civil War. It was located at Allerston for a combination of reasons: water supply, guano from two dovecotes and the political sympathies of the owner Sir Ralph Egerton.

(Rimington 1966; Cocroft 2000, 15-16, fig 1.14).

Scheduled Monument: National number 29532

National Monuments Record Report: NMR Number SE88 SE 21 Unique Identifier 62694

WORSBOROUGH DALE (SE 35 03)

On the Blacker Dike, a tributary of the River Dove, 2 km south-south-east of Barnsley. The entire works is under the spoil heaps of Barrow colliery (visited 1987).

The mills were established in the mid-19th century. Census returns of 1851 include gunpowder workers from outside the area, particularly from Kent. The mills were acquired by Kynoch Limited in the 1890s. An album of photographs survives showing exteriors of buildings, 1893 (South Yorks RO: 372/B).

Chronology

1849 Opened (Patterson 1986).

by 1853 John Shortridge & Charles Wright (Wilkinson, J, 1872).

1876 Continuing Certificate no. 1

1893 Shortridge & Wright sold to Kynoch Limited (Kelleher 1993).

1911 Closed (Patterson 1986)

Additions 2005-

Explosives Inspectorate reports in *Parliamentary Papers*

1884, 15 October (1884-5, xiv, 1029).