

Allen Mill 1820 - 1835

New Ore and Lead Roads

With the mill now over twice the size of 1800, the poor roads are a major problem for getting the ore in and the lead pigs out.

The first new road is built over Beaumont land from the mill to Catton, with a new bridge over the river. It was completed between 1820 and 1828, and on Greenwood's map it is called 'The Great Ore Road'.

Next a proposal for new Turnpike roads for the area. This was being promoted by Mr Beaumonts Chief Agent, Martin Morrison

August 1825

Measures are in progress to apply to Parliament next Session, to obtain an Act for a Turnpike Road from Cows Hill in Weardale, down Allendale to join the Turnpike above Hexham, in which is included a branch road from it, at Allendale Town, leading up West Allen past Coalcleugh & to join the Turnpike at Nenthead.....

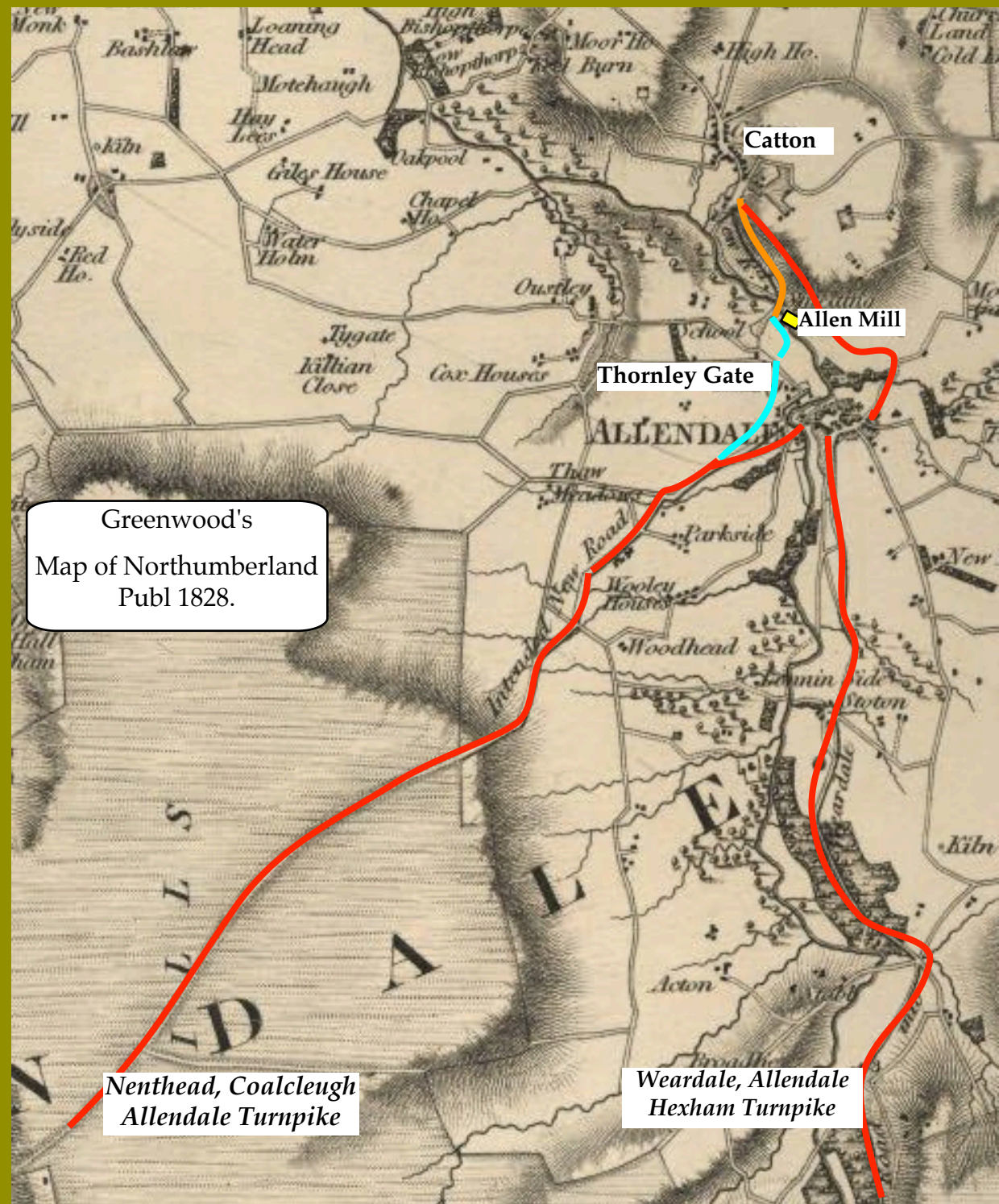
Colonel Beaumont has subscribed £5000 and others have Contributed under the impression that the Tolls will yield an Interest of 4 ½ percent per annum; but We are still short of the sum required by Parliament... which is 2/3rds of the amount.

The Act of Parliament was passed in Dec 1827. The roads and toll houses were completed by 1830.

It is notable that for the most part these roads do not follow old tracks, but are new routes.

Finally a link from the turnpike direct to the mill via Thornley Gate was built around the same time.

The new roads were calculated to be saving the Company £1287-7-6d per annum in 1833, just for Allen Mill ore carriage, and Allenheads lead carriage.



Allen Mill 1835 - 1837

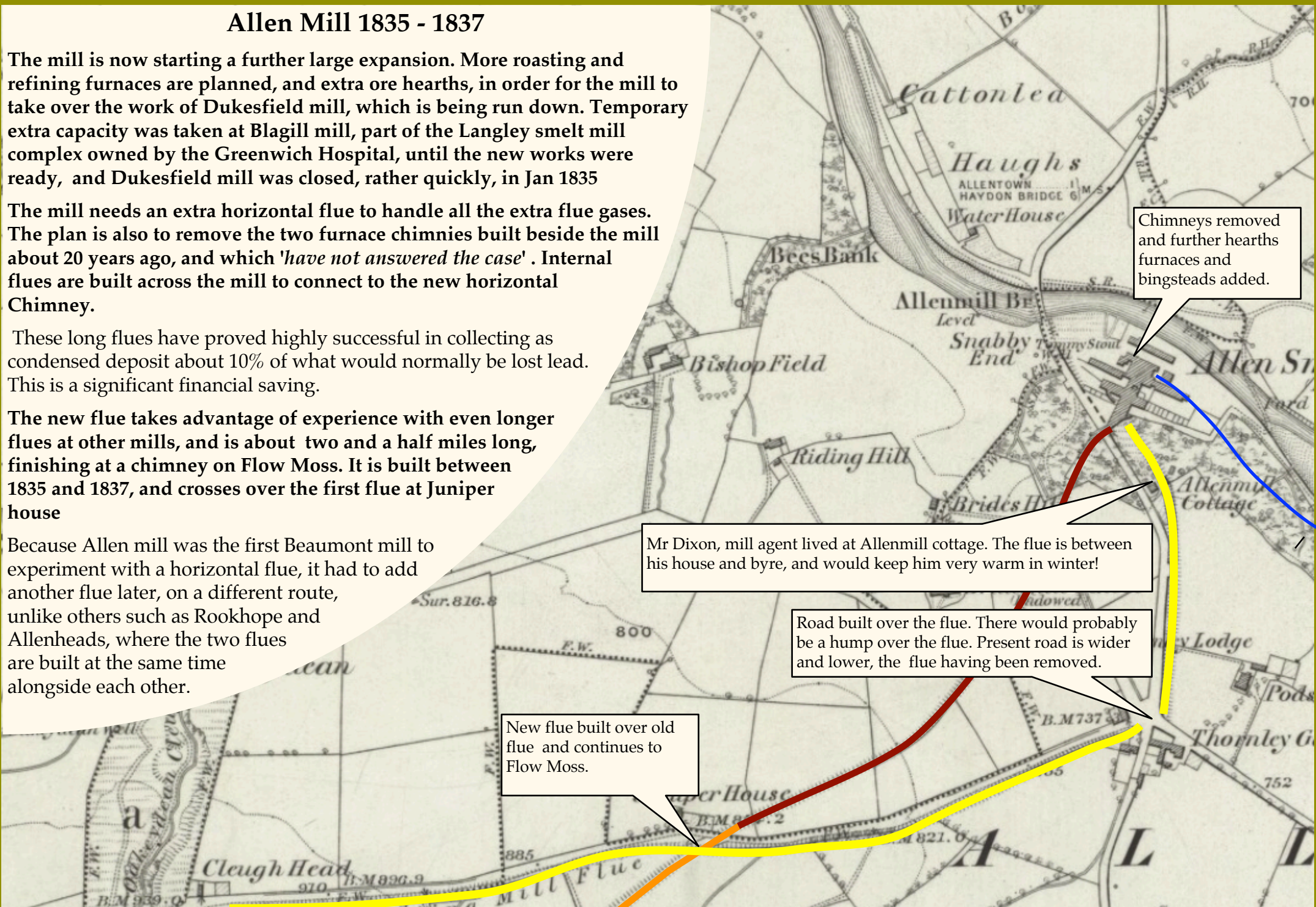
The mill is now starting a further large expansion. More roasting and refining furnaces are planned, and extra ore hearths, in order for the mill to take over the work of Dukesfield mill, which is being run down. Temporary extra capacity was taken at Blagill mill, part of the Langley smelt mill complex owned by the Greenwich Hospital, until the new works were ready, and Dukesfield mill was closed, rather quickly, in Jan 1835

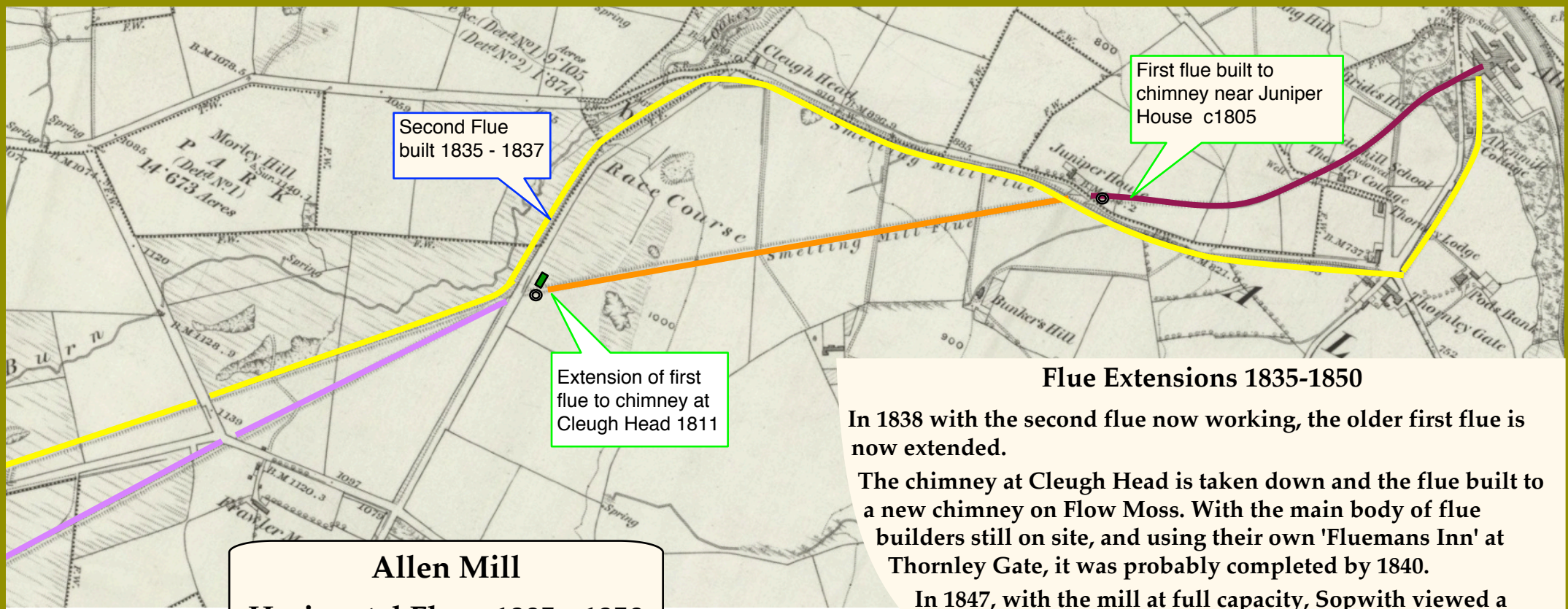
The mill needs an extra horizontal flue to handle all the extra flue gases. The plan is also to remove the two furnace chimneys built beside the mill about 20 years ago, and which '*have not answered the case*'. Internal flues are built across the mill to connect to the new horizontal Chimney.

These long flues have proved highly successful in collecting as condensed deposit about 10% of what would normally be lost lead. This is a significant financial saving.

The new flue takes advantage of experience with even longer flues at other mills, and is about two and a half miles long, finishing at a chimney on Flow Moss. It is built between 1835 and 1837, and crosses over the first flue at Juniper house

Because Allen mill was the first Beaumont mill to experiment with a horizontal flue, it had to add another flue later, on a different route, unlike others such as Rookhope and Allenheads, where the two flues are built at the same time alongside each other.





Second Flue
built 1835 - 1837

First flue built to
chimney near Juniper
House c1805

Extension of first
flue to chimney at
Cleugh Head 1811

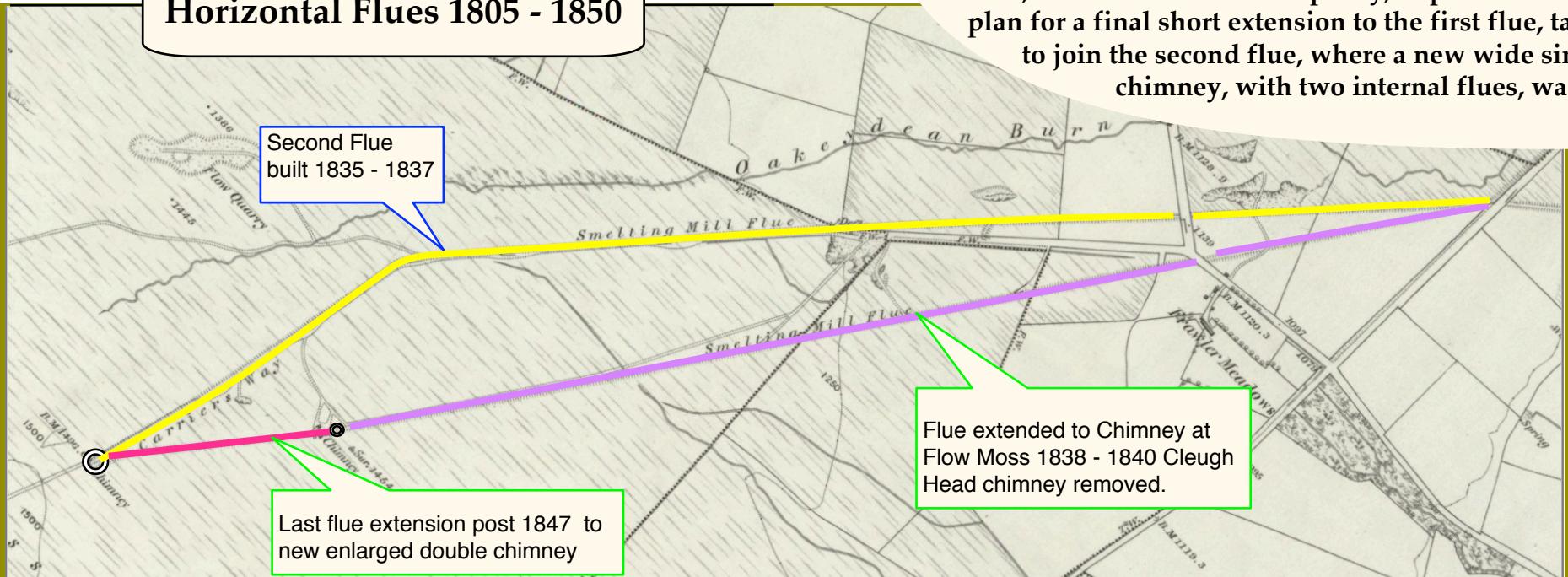
Allen Mill Horizontal Flues 1805 - 1850

Flue Extensions 1835-1850

In 1838 with the second flue now working, the older first flue is now extended.

The chimney at Cleugh Head is taken down and the flue built to a new chimney on Flow Moss. With the main body of flue builders still on site, and using their own 'Fluemans Inn' at Thornley Gate, it was probably completed by 1840.

In 1847, with the mill at full capacity, Sopwith viewed a plan for a final short extension to the first flue, taking it to join the second flue, where a new wide single chimney, with two internal flues, was built.



Second Flue
built 1835 - 1837

Flue extended to Chimney at
Flow Moss 1838 - 1840 Cleugh
Head chimney removed.

Last flue extension post 1847 to
new enlarged double chimney

Allen Mill 1837 - 1847

One of the significant indicators of a lack of interest in the older Dukesfield mill was the fact that no horizontal chimneys were built there, even though there was space to do so. Each of the other WB Lead Co mills had horizontal chimneys built very quickly after the technology was proven to be profitable.

Thus by the late 1820's it would seem that the decision to expand Allen mill and close Dukesfield was certainly very close. Plans were already going forward to spend very considerable capital sums on expanding Allen Mill to double it's current size. Dukesfield mill was closed in 1835, the same year that the new horizontal chimney was started at Allen mill.

In 1847 a plan of Allen mill was drawn for the new WB Lead Co Chief Agent Thomas Sopwith. It comprised 10 ore hearths, 1 slag hearth, 2 reverbratory furnaces, 5 roasting furnaces, and 4 refining furnaces.

This was to be the end of the Allen mill expansions, leaving it as the centre piece of the three WB Lead Co smelt mills.

It was now one of the largest mills in the country, a bit more than double the size of 1811, and over *five times* the size of 1800.

1847

10 Ore Hearths

1 Slag Hearth

2 Reverbratory
Furnaces

5 Roasting Furnaces

4 Refining Furnaces

