

THE SILK INDUSTRY IN THE CHALFORD VALLEY

By Hugh Conway-Jones

For a brief period in the middle of the nineteenth century, the Chalford valley was one of the centres of the rapidly expanding British silk industry. Demand for silk had been stimulated by the diversity of foreign goods coming on to the market after the earlier prohibition of imports was relaxed in 1826. The home industry was able to meet this challenge with the help of improved machinery and a growing supply of raw silk from the Far East.

The factory inspectors returns (1) show that the number of silk mills in Gloucestershire rose from two in 1838 to seven in 1850 and to eleven in 1856. (These figures do not include the mills at Blockley which was in Worcestershire at this time.) The number of workers (mostly female) rose from 120 to 1370 over the same period. Much of this growth took place in the Chalford valley where the woollen cloth industry was becoming concentrated in larger mills, and the smaller mills were available for other uses. Around Chalford, the main activity was silk throwing, that is the twisting together of raw silk filaments to obtain a range of finished thread sizes for various applications. Some firms are listed in directories as silk manufacturers, implying that they used the thrown threads to make finished products, but it is not certain whether this distinction can be relied on. The power used was not large, the average being only about ten horse-power for silk mills compared with about forty horse-power for cloth mills of the same period. Unfortunately the boom was short lived, as a treaty with France in 1860 allowed French goods into Britain duty free while there was still a duty on British goods sold in France. Gloucestershire was particularly badly affected, and by 1870 the number of silk mills had dropped to four and the number of workers to 540. Some firms kept going though, and it was not until the present century that the last silk mill closed.

A good insight into the work that was done in the mills can be obtained from an inventory of the equipment in Sevilles Mill in 1873 (2) and a contemporary description of the processes given by Tomlinson (3). The equipment listed in what was known as the Silk Mill was probably mostly installed in the 1850s. There was a double square wooden washing bin lined with zinc where the skeins of raw silk would have been soaked in a hot soapy solution to clean them and make them pliable. There were fifty deal poles in the boiler house for drying the silk on. The skeins would then have been mounted on large reels known as swifts. There were Canton swifts, China swifts and Japan swifts to suit the sizes of skeins coming from the different sources. There were eight winding engines with a total of 834 spindles to wind the silk from the swifts

on to wooden bobbins. Four of the winding engines were fitted with cleaners, which would probably have comprised closely spaced blades to remove or detect fluff, bulky knots and coarse threads etc. To clean the silk that had been wound on the other engines, there were four special cleaning engines. There were seven spinning machines (known as mills) with a total of 1390 spindles for twisting individual threads. The silk was wound from a vertical bobbin with a flyer on to a horizontal bobbin, and the degree of twist was determined by the difference in speed of the two bobbins. This provides the first stage of twisting in the preparation of organzine (which is intended for use as warp), but is omitted in the preparation of tram (a looser thread intended for use as weft). For combining two, three or more threads on to one bobbin, there were two doubling engines with a total of 270 spindles. This number seems rather low and it is possible that some of the other machines also served this purpose (as became common later). Finally there were five throwing machines (also known as mills) with a total of 1080 spindles for twisting the combined thread. These machines were similar to the spinning machines except that initially the thread was wound on a reel. The finished silk would then have been wound into skeins and taken to the making up room where there were four spring balances for checking the weight and there was a press used in packing the silk for despatch.

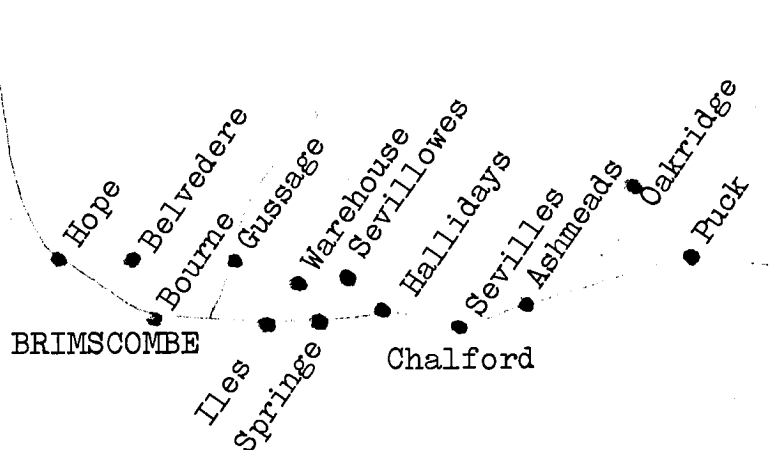
In the older part of the mill that had been used for making cloth until 1871, there were four reeling machines for transferring silk from bobbins to reels. These machines were fitted with bells which probably served to alert the operator in the event of a broken thread. There were also some other machines in this part of the mill similar to those already described (although apparently more up to date). To power all the machinery, there was a twelve foot diameter water wheel and a combined beam engine with a 10-inch diameter HP cylinder and a 16-inch diameter LP cylinder.

The earliest reference that I have found to the silk industry in the Chalford valley is in Pigot's directory of 1842, where Samuel Hook is listed as a 'silk manufacturer' of Chalford. In fact he was probably in business earlier than this, as S. and C. Hook were rated for a workshop adjacent to Spring Mill in 1840, and a deed of 1850 (4) refers to a building adjoining Spring Mill that had been used earlier as a silk mill by Samuel Hook. By 1845, Hook was occupying Warehouse Mill, and he was still there in 1855 although he gave up soon afterwards. By 1850, he was being listed in the directories as a silk throwater, and it is not clear whether the original listing as a manufacturer can be relied on.

In the Bisley rate books for 1845, there is specific mention of a silk mill owned by John Lowe and occupied by William Tayloe and a Mr. Hinton (probably Thomas Hinton listed as a silk manufacturer in Hunts directory of 1849). I have not been able positively to identify the premises referred to, but from a comparison of corresponding entries

in rate books for other years and the account of the Bisley mills in VCH Glos. Vol.XI, it appears that it was an old cloth mill adjoining the north-west side of the house where John Lowe lived and later known as Savillowes. In 1850, a Mr. Jackson is recorded as the occupier of the mill, although William Tayloe's occupation is still given as silk throwster in the census returns of 1851. By 1855, the mill was unoccupied, and it does not seem to have been recorded again.

STROUD



William Dangerfield and Sidney Foot started a silk throwing business at Gussage Mill probably in 1855. Certainly it was in that year that they insured their stock of silk in a building near the mill for £700 (5). By the following year, they had also taken over Warehouse Mill for Samuel Hook, and they insured the machinery for £1600 and the silk in stock for a further £1600. At the time of the 1861 census, they had 145 workers at Warehouse Mill and 125 at Gussage Mill (including some who were continuing Dangerfield's original business of bone button making). In the same census, Joseph Cherry gave his occupation as manager of a silk factory, and this is probably a reference to Warehouse Mill as the villagers still associate Cherry's name with a nearby spring. In 1867, Thomas Webb was also a manager for Dangerfield and Foot, and he was probably at Gussage Mill. It seems that they suffered in the general decline in trade in the late 1860s, however, as Gussage Mill is not listed in 1868, and although Dangerfield himself is still listed as a silk throwster in Chalford, he appears to have concentrated on his walking stick business after this.

Nathaniel Jones was one of the principal woollen cloth manufacturers in Chalford around the middle of the century, and was active in trying to relieve the plight of the out-of-work hand-loom weavers (6). He helped three of his sons to set up as silk throwsters. John William Jones is listed in Slater's directory of 1850, and he was probably using

part of Sevilles Mill where his father was making cloth. Joseph Jones was using Spring Mill by 1856 and Francis Edward Jones took over from him by 1858. John William Jones was obviously successful as he was working Oakridge Mill by 1855 and he bought Ashmeads Mill in 1859 (7). By 1860, he had also taken over Puck Mill where Blower and Smart had operated as silk throwsters for a few years. In that same year, however, he died at the early age of 33. Just over a year later, his widow married Charles DeBary who carried on running Oakridge Mill (and possibly Ashmeads Mill) and later also took over Spring Mill from Francis Edward Jones. However, DeBary was evidently affected by the general decline of the industry, and he is not listed as a silk throwster after 1867. In 1868 he was advertising Oakridge Mill to let as a silk throwing mill and Ashmeads Mill as being suitable for a manufacturer of cloth or a timber converting business (8). This latter description suggests that Ashmeads Mill may never have been converted to silk throwing owing to John William Jones's untimely death. After a short period as a flock mill, however, Ashmeads Mill did become a silk mill during the 1870s. The business was run by John Knight who was one of the executors of John William Jones's will, and the manager was Nathan Frost.

John Alexander Sparling is described as a solicitor and silk throwster in the census returns of 1871, and he had 263 employees. A newspaper report in the same year mentions that he came to Chalford in 1870 (9). The report describes a grand outing that he organised for his workers at Oakridge and Chalford Mills with food, games and dancing in a nearby field. The report also mentions that he had lately taken Iles Mill and was about to open it as a silk mill, although in fact it continued to be advertised for sale or letting for a further six weeks. The Chalford mill can be identified with Sevilles Mill, as Sparling is referred to as having previously occupied it as a silk mill in a lease of 1873 (2). By 1874, he had also finished at Oakridge mill, and it was used for silk throwing by Tubbs Lewis and Co. until about 1879 when they concentrated their operations near Kingswood.

It was clearly difficult to keep a silk throwing business going during the late sixties and seventies, but one that was successful was run by the Chapman family. Joseph Chapman is listed as a silk throwster of Chalford in Kelly's directory of 1863. It is not clear whether this is a reference to Joseph Chapman senior who was a coal and timber merchant and maltster, or whether it refers to his eldest son who was also named Joseph. It is Joseph junior who is listed in 1867, but it is his younger brother William who ran the business from then on. They probably started at Hallidays Mill, although no positive link has been found prior to 1876. By 1870, William had bought Warehouse Mill from William Dangerfield, and the 1871 census returns show that he was employing 250 workers. In 1873, he leased the whole of Sevilles Mill from Nathaniel Jones (2), and in 1880 he was rated at Oakridge Mill. Eventually though, he too was overcome by competition from the French, and he does not appear in directories after 1894 (most of his mills being forced to close by 1890).

Charles Chandler is listed as a silk throwster in Chalford in 1894, but nothing else is known about him.

Just before the close of the century, William Sidney Cox moved to Chalford from Coventry where he had owned the Brandon Silk Mill, and started making sewing silks on a small scale probably at Hallidays Mill. He brought his nephew Charles Padin with him to act as foreman. In 1903, Cox and Padin moved to Days Mill at Nailsworth, although silk making machinery still remained at Hallidays Mill in 1912 (10).

Further down the valley at Brimscombe, the growth and decline of the silk industry was very similar to that around Chalford, although on a smaller scale. In 1856, the clothier John Webb of Bourne Mill had silk throwing machinery valued at £500 and a stock of silk also valued at £500 (5). This may have been an attempt to diversify during a difficult time for the cloth industry, but Webb had left Bourne Mill by 1863. Over the period 1863-79, Charles Hodgson is listed as a silk throwster at Belvedere Mill. Jennifer Tann associates this name with Tayloes Mill at Chalford, but it is now clear that the mill referred to is the building on the Chalford road in Brimscombe now known as Gordon Terrace. An abstract of title in the possession of the owner of one part of the building shows that Charles Hodgson erected a silk mill on land he had bought in 1856. After he died in 1879, his widow was forced to sell the mill, and it was converted to dwellings in 1884. The longest surviving firm in Brimscombe was run by Charles Barton at Hope Mill. He is first listed in 1863, although the firm may have started earlier as Richard Barton and Son are listed as silk throwsters in Slaters Directory of 1858. Charles Barton continued at Hope Mill until about 1910, and he was still said to be living near his idle mill in 1912 (10).

### Sources

This study was inspired by the various fleeting references to silk mills in Volume XI of the Victoria County History of Gloucestershire, and this volume should be consulted for further information on the location and the general history of the mills named above. Much use has been made of the surviving rate books of the overseers of the poor and of directories of the period, and it has not been thought necessary to reference these specifically. The author is grateful for information received from Messrs. F. Hammond, L. Padin and R. Clarke of Chalford and Mr J.F. Morgan and Mrs. Howell of Brimscombe.

## References

1. H.L.R.O. Return of mills and factories. Journal of the House of Commons. 1839 vol. XLIII, 1850 vol. XLIII i vol. XIV and 1871 vol. LXI.
2. Glos. R.O. D1241 Bundle 51
3. Tomlinson C. Cyclopaedia of useful arts and manufactures (c1860).
4. Glos. R.O. D1159 Dangerfield deeds 1803-67.
5. Glos. R.O. D2794/25
6. Glos. R.O. P47 CH4/1
7. Deeds of Ashmeads Mill in the possession of Mr. R. Clarke
8. Stroud Journal 28th March 1868
9. Stroud Journal 12th August 1871
10. An account of the opening of the new headquarters of the Chalford Habitation of the Primrose League 1912 (from a copy in the possession of Mr. F. Hammond).