

THE COTTON-SPINNING FACTORIES OF FLINTSHIRE, 1777—1866

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The story of the cotton factories established at Holywell and Mold in the eighteenth century is a significant episode in the industrial history of Flintshire. These factories, it must be emphasized, were devoted at Holywell entirely, and at Mold mainly, to the spinning of cotton, not to its weaving.

I. HOLYWELL

The cotton-spinning industry made its initial appearance in Wales in 1777. John Smalley, formerly partner of Arkwright in his struggling days at Preston and elsewhere, established himself independently of Arkwright at Holywell.¹

It has been suggested that the Roman Catholic reputation of St. Winefred's Well had made the district known to the West Lancashire people among whom the Catholic element was strong. But the stream at Holywell had already played a considerable part in industry. Pennant, writing in 1796, lists several trades settled along the stream: a tilting mill and iron-ore mill had become Smedley's lead-works; a second iron-ore mill which later passed into the possession of the Chambers family as a steel wire mill and from them to the Parys Mine Company. A paper mill had occupied the site of the ancient corn-mills at Basingwerk Abbey. Peter Parry, tobaccoconist, had employed the stream to work two snuff mills. The brass battering mill had displaced his. Pennant recollected also a smelting works erected before 1733 and later worked by the agent of the Bristol Company "who there calcined black-jack." A pin mill built in 1764 had become a coarse paper mill. These were all ventures prior to the appearances of the Smalleys.

Pennant gives the length of the stream as one mile 364 yards. An advertisement in the *Manchester Mercury*, November 6th, 1792, describes its merits thus: "The Stream is constant from the Holywell Spring which discharges 25200 gallons or 100 Tons of Water per Minute. The Mills upon this Stream are never retarded by Floods and the Water never freezes." Again and again advertisements stress these attractions: ". . . worked by one of the most powerful streams of water in the country," "the stream being at all times equal." The district was not as remote as some which became for a period cotton-spinning centres, being "within a few hours' sail of Liverpool and Chester." By 1802 there were regular packets linking Holywell to Chester and Parkgate, and within twenty years a Steam Packet Company had regular daily sailings between Bagillt and Liverpool.²

¹Pennant: *History of the Parishes of Whiteford and Holywell*, 1796, pp. 201-3.

²Espinasse: *Lancashire Worthies I*, pp. 384-7.

³*Chester Chronicle*, 30.iv.1802; 4.ii.1825.

It is hardly surprising that "the cancerous ramifications of one of the Manchester concerns have reached Holywell," as a retrospective correspondent of the *Manchester Guardian* was presently to complain.¹

The nature of the Holywell stream and the nearness of the Dee coast were therefore sufficient inducement to Smalley. In partnership with John Chambers of the Holywell family mentioned above, he built the Yellow Mill, using stones taken from Basingwerk Abbey for the purpose.² Pennant describes this factory as "small and low, is 33 yards long, 8 yards wide, and only 3 stories high". The water-wheel was 15 feet high, 5 feet wide, with a fall of water 11 feet 6 inches. The mill—"only" three stories high, as Pennant rather contemptuously puts it—seems to have been a replica of the typical Lancashire warehouse of pre-power days to which a water-wheel had been added.³ Professor Dodd suggests that spinners were brought from England to work the mill.

The years 1783-7 marked a prosperous spell for the cotton industry, imports of raw cotton rising rapidly after the close of the American War, so that within four years they had doubled. Two factors which stimulated the manufacture were the expiry of Arkwright's patents in 1785 and the introduction of cylinder-printing by Livezey, Hargreaves, & Co. The great panic of 1787-8, with the failure of this firm and of Allen's bank in Manchester, shook the young industry to its foundations.⁴

The cotton boom had its effects upon the Holywell concern. John Smalley had died in 1782 and Chambers, the local partner, had gone bankrupt and left the business.⁵ Smalley's widow continued with the business and soon found substantial supporters. Money was flowing into the cotton trade and the Holywell mill readily attracted fresh capital, which enabled the building of a second mill, the Upper Mill, in 1783, and two years later a third, known as the Lower Mill. These were much larger than the original factory, each six storeys high, a fact which impressed Pennant as much as the hustling job which the builders achieved when the Upper Mill was erected in six weeks.

This expansion roused the interest of the Arkwrights, for in 1787, the younger Arkwright wrote to Samuel Oldknow, "I hardly suppose this will meet you returned out of Wales . . . I hope you have seen the mills at Holywell & will give me an account."⁶ By this time the firm consisted of the widow Smalley, and a number of leading manufacturers, among them William Douglas of Salford, Daniel and John Wittaker of Manchester, with Ann, John, and Jonathan Dumbell of Warrington, all trading under the name of the Holywell Cotton Twist Company. About this time Christopher Smalley, son of the founder, became a partner, as did John Douglas of Pendleton, an ambitious man who made himself long prominent in trade and public

¹*Manchester Guardian*, 26.ii.1825.

²Dodd: *Industrial Revolution in North Wales*, p. 284.

³Pennant, p. 214.

⁴Ellison: *Cotton Trade of Great Britain*, 1886, pp. 49-50. Grindon: *Manchester Banks & Bankers*, 1872, pp. 46-7. *Manchester Mercury*, 29, iv, 1788; 20, v, 1788.

⁵*London Morning Chronicle*, 17, iii, 1780.

⁶Unwin: *Samuel Oldknow and the Arkwrights*, 1924, pp. 94-6.

affairs in Manchester. One of his investments was the canal from Manchester to Bolton and Bury (after 1791).¹

The success of the Smalleys drew another adventurer to the Holywell stream. This was one Peter Atherton whose company advertised in 1789 for "A Great Number of Good Cotton Workers, particularly Young Women, and Boys, and Girls."² This company seems to have met with little success for Pennant makes no mention of it. It is possible, however, that, from the death of John Smalley until the reorganization of the firm in 1790, the firm was known as Peter Atherton & Co., for this was the title of the advertisers of the Holywell Corn Mills in September, 1788, a property which was later to be offered for sale by the Cotton Twist Company. Atherton also appears as a partner with Phillips and Lee in the Salford Engine Twist Company, whom he leaves in 1794. He then establishes himself in a new and large steam-spinning mill in Liverpool, until his death in 1799. He is typical of many adventurers of the period, his name cropping up often in various localities. It is quite possible that he was the Peter Atherton of Warrington to whom Arkwright and John Smalley had applied in their days of struggle for help in constructing the water-frame.³

The Holywell Cotton Twist Company continued to expand. Early in 1790 a fourth mill was built, rather smaller than the second and third, and called the Crescent Mill.⁴ The Manchester warehouse was situated in Sussex Street in 1792 and in Back Square in 1796.⁵ There was one anxious period when the credit of the company seems to have been questioned. This was in 1793 when a number of Manchester men, including William Douglas, approached the Bank of England to guarantee the good name of Jones, Barker, & Co., the most important of the Manchester banks (later Jones, Loyd, & Co.). In June of that year the Stockport Bank failed, and with it two of the five partners comprising it. These were John Dumbell, who was still engaged as a spinner at Warrington, and Jonathan Dumbell, who was described as "of Holywell, banker and dealer." Although the trustees of the Stockport Bank managed things so well that ultimately a dividend of twenty shillings in the pound was paid, it was found necessary for the Dumbells to publish the fact that they had long been dissociated from the Holywell Cotton Twist Company.⁶

Pennant describes in detail the Holywell mills and with some pride, the total number of employees being given as above 1225. These included over 500 women and children at these mills as well as more than 300 parish apprentices housed in the Company's own "commodious houses." Outworkers were employed at Denbigh, Ysceifiog, and Newmarket. In Denbigh the Company had taken over a building previously used as a woollen mill and built by Mostyn, Pigot, & Co., in 1749. There the cotton was picked and sorted. Mule spinning was carried on in addition to spin-

¹*Manchester Mercury*, 11, vi, 1793; 25, vi, 1793; 3, ix, 1793; 21, x, 1794. The bankruptcy and death of Daniel Whittaker were followed by the sale of his seventh part holding in the Holywell Cotton Twist (*Manchester Mercury*, 7, i, 1794; 23, iv, 1794).

²*Manchester Chronicle*, 19, xi, 1789.

³*Manchester Mercury*, 2, ix, 1788; 18, iii, 1794; 17, ix, 1799. Espinasse, I, 383; Baines, *History of the Cotton Manufacture in Great Britain*, 1835, p. 150.

⁴Pennant, p. 213.

⁵*Manchester Mercury*, 30, x, 1792; 22, iii, 1796.

⁶*Manchester Mercury*, 16, iv, 1793; 25, vi, 1793; 3, ix, 1793; 21, x, 1794.

ning by the water-frame, but it is not clear whether water-power was later applied to driving the mules. Of four "articled servants" who had absconded in 1791, all were mule-spinners, and three were born locally.¹

The Cotton Twist Company's mills continued to be dependent upon water-power until the thirties. The title of Douglas, Smalley, & Co., and later of Douglas & Co., becomes more frequent than the earlier name in the new century. In 1816 the number of employees was 736, of whom 20 were under ten years of age and 297 between ten and eighteen years.² In Samuel Lewis's *Topographical Dictionary* (1833) details are given of dependency on the 'improved machinery of Sir Richard Arkwright.' The Upper Mill, says Lewis, worked 12,218 spindles, the Lower Mill 7492, and the Crescent Mill 8286. The thread produced amounted to 26096 pounds weekly.³

Following the financial crises of 1825 and 1826 the cotton industry generally had been marking time. But in the thirties certain important changes were effected with the rapid extension of power-loom weaving. Many manufacturers hitherto engaged only in cotton-spinning now added weaving-sheds to their factories and installed steam-engines to supplement or replace their water-wheels. By 1835 the Flintshire factories employed five steam-engines and four water-wheels, all the steam-engines being at the Holywell mills.⁴

But the period of apparent prosperity was short-lived and the slump of 1837 contributed to the decline of the fortunes of the Douglas family (the Smalleys being no longer connected with the firm). Christopher Smalley withdrew from the company in 1828, the partnership surviving among J. and T. Douglas, T. Hilton, and others.⁵ The banking house which the partners had instituted continued to function in conjunction with the Northern and Central Bank, as Douglas, Smalley, & Co., until about 1838, when its collapse involved the misappropriation of the subscription money collected for families in Mold bereaved by the Argoed Colliery disaster. Among these was the mother of the future Welsh novelist, Daniel Owen.⁶

The introduction of steam-power had failed to maintain the prosperity of the Holywell firm against the increasing dominance of South Lancashire. The Factory Inspector (T. Jones Howell) reported in 1837 that he had visited two cotton mills at Holywell between the hours of ten o'clock and midnight: "I never saw any set of people so wan and haggard in their appearance as those who were then and there at work." Prosecution followed his visit. The firm was fined nineteen pounds on several charges, including one of employing young persons under eighteen years for excessive hours.⁷ This is a far cry from the halcyon days of Pennant and seems prophetic of the end. By 1841 the company employed only fourteen persons, still engaged in cotton spinning, and shortly afterwards went into liquidation.⁸

¹*Manchester Mercury*, 5, iv, 1791; 3, v, 1791; Pennant, p. 216. *Manchester Chronicle*, 9, x, 1790.

²*Select Comm. on Children employed in Manufactories* (1816), p. 374.

³Lewis: *Top. Dict.* 1833; Dodd: p. 286.

⁴Ure: *Philosophy of Manufacturers*, 1835, p. 480.

⁵*Manchester Gazette*, 30, viii, 1828.

⁶*Manchester Gazette*, 24, ii, 1838; Foulkes: *Daniel Owen y Nofelydd*, p. 25.

⁷*Reports: Inspectors of Factories (T. J. Howell)*, 12, xi, 1837.

⁸*Bolton Free Press*, 27, xi, 1841.

II. MOLD

The cotton factory at Mold began its chequered history towards the close of the eighteenth century. The attractions of Mold to such a venture seem less obvious than those of Holywell. Streams there were in plenty. "By Springges and Rylles this Paroch beyng yn Lenght a V Myles is wel servid of water and dyvers other good thinges," wrote Leland.¹ The principal stream is the Alyn, "within a Bou Shot of Molesdale Chirche," but it cannot be compared with the Holywell stream in point of velocity, capacity, or reliability.

Before arriving at Mold the Alyn passes underground from Hesp Alyn to Rhydwyn and, despite its numerous feeders, only in the months of February and March does it achieve a considerable volume in its approach to the town. A few corn-mills stood on its banks—at Llanferres, Loggerheads, Nantalyn, Pentre—though the Llwynegrin mill had become the lead mills of the middle eighteenth century, only to revert to corn-milling by 1800. The stream was advertised, however, as "sufficiently powerful for any manufacturing purposes on a large scale." Mold was, in 1790, a decayed little town, with a tumbledown goal and a Town House too small to shelter the electors, the assize town of the county, and surrounded by unenclosed country, well wooded, and pitted with mines of lead and coal.²

The Mold cotton mill was a product of the boom years of 1790—1794, when the Smalleys, amongst others, extended their mills. The flourishing state of the Holywell company drew the attention of other Lancashire manufacturers towards the Welsh valleys and inspired Welsh landowners to offer likely sites for industrial concerns. In 1789 there was advertised "An overshot Water Stream, upon the river Allen, above Mold." This may well have been that length of the Alyn which was to be taken up by the cotton mill.³ "This Stream has for many Years been employed in working a very large Water Wheel and Engine for drawing Water out of a Lead Mine." The wheel was offered for sale—a fact which would explain the unpromising location of the factory. By 1800 the mill was at work and was being offered for sale in that year by Messrs. Hodson and Leigh.⁴ These were the names of cotton spinners of considerable standing at Manchester and Stockport. At this date, the mill "is in full work, having a competent number of excellent hands, and the mill as in complete repair and fully equipped with water, and the machinery is in excellent condition upon the most improved principles." In the mill estate were included stables, barns, and sixteen cottages. These were the cottages at Rhydygoleu, which may previously have housed the lead-miners of an earlier venture, for they were more typical of the mining hamlets of the Mold region than of the red-brick cottages which constituted the later factory village. The machinery included "4000 spindles and all the necessary geers, tumbling shafts, water-wheels, &c., &c." It appears to have justified the description of "a handsome and stupendous factory."

It is probable that the mill was then sold to another group of Manchester manu-

¹Leland: *Itinerary*, edition 1711.

²*Chester Chronicle*, 1, ii, 1782; 4, x, 1782; 13, xi, 1795; 1, x, 1796; 25, x, 1805.

³*Manchester Chronicle*, 21, xi, 1789.

⁴*Manchester Mercury*, 1, iv, 1800, and afterwards.

facturers, amongst whom were Thomas and William Bateman and Samuel and Thomas Knight. In February, 1803, one Brian Hodgson of Uttoxeter severed his connection with the firm.¹ The Batemans and Knights continued in partnership under the style of the Mold Cotton Twist Company, carrying on business at Mold and Manchester. Later Samuel and James Knight emerge as proprietors, combining banking with cotton-spinning.² Lewis avers that coal-gas lighting was introduced into the mill in 1812, a sure mark of progressive management, and that the factory was greatly enlarged in 1825. Eight years later the mill was at a standstill.³

By that time the Knights, whose banking commitments caused their ruin in the financial panic of 1829-30, had been displaced by Messrs. Unman and Son, and the factory now entered a period of prosperity. The new proprietors followed the progressive fashion of supplementing their water-wheels with steam-engines and of adding weaving to their spinning activities. Calico cloth known as "domestics" was sent to Manchester. The change to weaving involved the training of young women of the neighbourhood, some of whom were sent to Manchester for the purpose. The steam-engine accompanied the power-loom, the second being installed about 1836. The firm was occasionally visited by the Factory Inspector but seems to have complied with the Factory Acts to his satisfaction. A Factory School was opened in 1834 and twelve years later there were thirty children in attendance.⁴

The development of the cotton factory during this period resulted in the establishment of a Lancashire enclave in the Maes-y-Dre area of Mold. Considerable building development followed, 1827—1832, the neighbourhood taking on a resemblance to a typical South Lancashire mill and colliery village. The tenancies of the cottages in the mid-century reveal an alien population from over the border—Mather, Kay, Blundell, Atherton, some of the names indubitably Lancastrian. Inter-marriage with the local Welsh artisan population and in later times with tinplate workers who immigrated from the Swansea Valley resulted in a hybrid population in whose jargon Lancashire terms have persisted to the present day and whose domestic habits are those of the cotton operatives.⁵

The seasonal deficiencies of the river had led the earlier manufacturers to construct an ample "lodge" or reservoir of water known locally as the Factory Pool. This was in a meadow some feet above the valley of the Alyn, a channel being cut from a higher reach of the stream for the purpose. The pool was connected to the factory by a "Force"—a lead-miners' term—or channel about nine feet deep which conducted the water with a considerable fall to the water-wheels.⁶ It is not difficult to understand why the new owners should adopt steam-power to supplement their driving force of water. Any further development of water-power at this place would have meant enormous expense and practical difficulty. It seems likely that the maximum of service had been obtained from the local water resources. Moreover the district

¹*Manchester Mercury*, 1, ii, 1803.

²*Chester Chronicle*, 19, iv, 1805; 23, xii, 1825.

³Dodd, p. 288.

⁴Reports: *Factory Insp.*, 1, v, 1845; *Report on State of Education in Wales, 1846-7*.

⁵*Manchester Chronicle*, 2, ii, 1833.

⁶Local information and family papers.

⁷*Murray's New English Dictionary*, 1899.

abounded in coal, a great number of pits being at work in the middle of the nineteenth century. One of the largest was the Bedford Colliery which adjoined the land occupied by the Cotton Twist Company. Coal was therefore easily obtainable and cheap.¹

Local communication were at first adequate. Turnpike roads had connected Mold with Chester, Holywell, Wrexham, and Denbigh, since the middle of the eighteenth century, the Denbigh road running alongside the frontage of the cotton mill, with a bar at Rhydygoleu.² Travel was slow enough, a fact which must have jeopardised the prosperity of the mill in competition with those more favourably placed in Lancashire. James Knight had figured amongst the landowners who had agitated for a bridge across the Dee at the King's Ferry, presumably to link Flintshire with Manchester by the proposed Ship Canal from Manchester to Dawpool on the Dee, by-passing the Mersey.³

A proposal to link, by railway, the colliery villages of Coed Talon and Treuddyn with the Dee Estuary had been mooted as early as 1825, a Mold Railway Bill being introduced into Parliament in that year, but the matter was dropped after opposition from the trustees of the turnpike companies affected.⁴ But the growing volume of trade, the demands of an industrial society which was increasing its momentum, made it imperative that the road system should be reinforced by the railway. Some idea of the slowness of local communication may be derived from the fact that gunpowder for use in the Mold leadmines was brought on donkeys from Stoke-on-Trent in the eighteen-forties, a round journey of five or six days for the carrier. The owner of the cotton mills was among the supporters of the North Staffordshire Railway Bill in 1837, but the railway did not reach Mold till 1849, when a line was opened between Mold and Chester.⁵

The Mold Cotton Factory survived those at Holywell by nearly thirty years, through varying fortunes, with the number of employees rising and falling according to the ups and downs of the cotton trade. In 1835, according to Ure, there were 230 hands; in 1841, out of 246 cotton workers in the county Holywell employed only 14.⁶ The ownership of the Mold mill changed periodically. In 1837 the proprietor was named Trueman and in the latter years the mill was owned by a family named Gregg. The factory even survived the great Cotton Famine of the American Civil War, but on Thursday, 8th November, 1866, it was burned to the ground. At that time there were 250 persons in employment and 25,000 spindles. No mention of looms appears in the newspaper account of the fire, so one may assume that weaving had been abandoned. In 1874 the estate and ruins were bought by a steel tinplate firm and later passed to the Pontypool Iron and Tinplate company.⁷

¹Watson MSS, No. 3016 (Inst. Mining & Mech. Eng., N-on-T.); *Transactions I.M.M.E.*, 1876; *Chester Chronicle*, 24, iv, 1778, &c.

²*Chester Chronicle*, 26, v, 1780; 22, iv, 1785; 1, vii, 1785, Kc. Dodd, p. 92.

³*Chester Chronicle*, 12, viii, 1825; *Manchester Guardian*, 5, ii, 1825.

⁴*Chester Chronicle*, 20, v, 1825; 11, iii, 1825. Dodd, p. 113.

⁵Dodd, p. 118; *Manchester Chronicle*, 4, ii, 1837; Local Information.

⁶Ure, *Philosophy of Manufacture*, p. 480.

⁷*Manchester Chronicle*, 14, iii, 1837; Lealie: *Rambles round Mold*, 1869; Violet: *Mold Gleanings* (MSS); Dodd, p. 288.