

and Mr. Richard Terry⁵ of Walton the millwright undertook repairs on horse wheels. There is a reference to the horse wheel at the Aylesbury brewery in a sale document⁶ dated 1824: 'The Horse Wheel by which all the machinery in and about the Brewhouse is worked stands in a commodious part of the Premises, and is worked by two Horses.' At the time of the sale the brewery was in part owned by Mr. Thomas Dell. For the County Gaol authorities Mr. Cooper carried out a number of alterations and repairs to the treadmill, which was used to provide hard labour for the prisoners. The treadmill possessed a wheel 20 feet in diameter and for some years had proved to be rather unsatisfactory, regularly requiring alterations and repairs, as will be detailed later.

For the farmers of the area Mr. Cooper repaired their 'chirns' (butter churns) — in all seven are referred to in the accounts — some of which may have been horse-driven⁷. He repaired chaff, malt and bean mills as well as 'hay mechines'. This work took him or his workmen as far away as West Wycombe (Sir John Dashwood), Winslow (Mr. Hall), Aston Abbotts (Mr. Elliott) and Wendover Dean (Mr. Reading).

Mr. Cooper's work on the various types of mills and machines described above are typical millwright's tasks but many of the jobs detailed in the accounts are more suitably blacksmith's, coopers', wheelwrights' or carpenters' work; in fact Mr. Cooper appears to have been a regular 'odd job man' as well as a skilled millwright.

For a Mr. Edwards he charged for 'Roughing shoes' and a 'truss of hay'; for Mr. Gaudrey '2 shoes & roughing', '3 shoes — brown mare' and for 'mending cart'. Roughing of shoes is the preparation of horse shoes for use on ice and snow⁸. To a Mr. Collins he supplied '12 stoves different sizes' also 'chanes for front of house' and 'kitchen range repaired'. For Mr. Cox of Bitchendon⁹ he supplied a 'peace of oak for a sill' and '10 wedges, 2 stays and 2 holdfast'; for Mr. Gurney of Walton he repaired the ironwork for a wagon and supplied '2 large oldfast for church' and 'ironwork for lamp-fitters

ladders'. For Mr. Terry of Walton, as well as fitting cogs to the horse wheel he mended a rat trap, ringed pigs and 'mended plough shears'. For a Mr. Landon he supplied many 'steel shoes' costing 9d each and charged for '1 pint of rum 1 gin' which cost 3/6. Mr. Landon was employed by the millwright for the carriage of wood and iron for Fulmer mill.

Mr Cooper worked for a number of Aylesbury tradesmen at odd jobs. For Mr. Francis Layte¹⁰, the stone and marble mason of Walton Street, he regularly sharpened tools and provided 'strong cramps'. also '6 strong Oldfast to Church'. For Mr. Berry, Cabinet Maker¹¹, Mr. Cooper made 'bed rods' and a set of 'curtin rods'. For Mr. Jasper Jackson¹², the well-known Aylesbury Quaker¹³, cabinet-maker and upholsterer, he supplied 'bed and curtin rods', 'plates for bed rales', 'new trivet for fire grate', and 'kees'; he also repaired locks and did many other small jobs which must have been time-consuming and not very profitable. Mr. Jackson also owned a 'Hearse-House'¹³, that is, an undertaker's business, and one item in the account is for 'mending iron work for the Earce'.

In contrast to the general account book the Fulmer book relates only to work on the one mill. On the inside cover is written 'Account of things paid for Fulmer mill'. The first twelve pages are concerned with payments for labour, and heading the first page are the words 'for labour at Champnes(s) work'. Each workman's name is given with the number of days or part of a day worked and the wages paid to them. The names of fifteen men appear (see Appendix B), including those of W. Cooper and J. Cooper, and '2 labourers'. All the named men, including the two Coopers, received four shillings a day, the labourers only two shillings. In comparison the five men working on Quainton mill in 1832 received five shillings a day when working at the mill but less, usually only half, when working 'at home'.

After detailing the labour costs the account book gives two separate lists of the total costs, which differ only in the stated total cost of labour: in the first list this is given as £264 - 7 - 5

and in the second as £216 - 17 - 5½. The second list is given below:

	£	s	d
'paid for Labour for Champness Mill at Fulmer	216	17	5½
Paid the Sawyer at Different times	9	1	6
Paid for Nail screws Canvas Chisels &	23	15	2
Expenses for Different things	42	6	0
for the Hole of the iron work	83	3	8½
Mr Gurneys Bill for Timber	10	16	9
Mr Durleys Bill for Timber	33	9	6
Paid for Carage	25	18	9
	<u>£445</u>	<u>8</u>	<u>10</u>

Cash received at Different times 165 0 0
I have Not Charged for my Horse nor the use of the New blocks and Rope as was mad for that Job at Fulmer'

No further information is given regarding the sawyer's account, but the other expenses are given in detail thereby providing much interesting information on materials and transport.

There were fifteen separate payments for 'Nails screws Canvas . . .' These included three items 'for the sales' namely 121 yards of canvas £4 - 3 - 2½, 13 gross of inch screws £1 - 11 - 5, and 22 thousand tacks £1 - 2 - 0. A 'cast iron cross for connecting rod Rack & pinion & cupling Box from Dudswell foundry' cost £1 - 2 - 0. This foundry¹⁴ is referred to in the general account book when an iron wheel for Mr. Anstay of Ivinghoe and '1 pair of weels for dressing tackle' for Quanton mill were both obtained from Dudswell.

Under 'Expenses for Different things' Mr. Cooper lists 'Expenses to Birmingham with Father £2 - 18 - 6' and 'Expenses to Birmingham self £4 - 16 - 6'; iron for the mill was obtained from Birmingham. There were 'Expenses to Fulmer & Different places £7 - 10 - 0'; as Fulmer is about twenty miles from Aylesbury, this distance must have added considerably to the travelling expenses. Mr. Cooper also had the expense of going to London 'to settle the Rit(writ)', as well as paying for 'Copy of a Rit', expenses for 'Sherrfs offecer' and 'Lawyers Charge'. These last items were, no doubt, in connection with the amount owing on the Fulmer account.

There were twenty-one items for iron work, which, after the cost of the labour, was the most expensive item in the account. A variety of iron work was purchased: 'Hoop iron for the stone hoops and stones', '37lb of Brass for the slides' and brass for the 'Bairings of Fan', 'Bolts for the sliding carage and the Hole of the Roof', 'a roat (wrought) iron Brake & Brake pins and Joints', 'steel collars' and 'iron work for the stone Bridges and boxes & Bairers . . .' making a total of £83 - 3 - 8½ worth of metal for the mill.

A number of different types of wood were used for the mill and mill house. From Mr. Gurney the millwright obtained 'yellow deal', use unspecified, dry elm for worm patterns and clutch patterns and a piece of elm for the 'Ball'. For the vanes and tail tree he bought Memmel¹⁵ and foreign oak and board for the fan. From Mr. Durley he bought oak for the 'hed Block', the curb and shaft of the fan, also '3 large pecis of Oak went to Fulmer for posts to cover the well' and he used 'oak jist (joist) for top of mill'. Mr. Durley also supplied joists for the mill and house, oak gate posts, deal gates with oak heads and some 'Bond timber'¹⁶, use unspecified.

Of the ten payments made for 'carage', nine were made to 'Mr Landon & wagner' and one to Smith for 'carage of Iron from Birmingham to Aylesbury'. The carriage expenses were considerable for there was much carrying of iron and timber between Aylesbury, Uxbridge, Drayton (West Drayton), Birmingham and Fulmer. Uxbridge is four miles from Fulmer and Drayton six miles; both were situated on the Grand Junction canal (now the Grand Union) and this may, at least in part, have been the reason for the transport of materials to and from these towns. Timber, for example, was brought from Uxbridge to Aylesbury, deal from Uxbridge to 'D' and iron rests from Birmingham to Drayton.

The 'carage' expenses complete the accounts for Fulmer mill.

William Cooper's premises in Aylesbury were situated in Walton Street on a site now

occupied by the White Swan. This fact is recorded in the Aylesbury Poor Rate Book for 1831-2¹⁷. The first rate for 10th November 1831 reads:

Cooper Wm	Dell & Co	10/- house
	Dell Thos	4/- foundry
	The Duke of Buckingham	10/- garden

In the 3rd and subsequent rates in the book the 'house' is called the 'White Swan'. In the earlier Rate Book for 1827¹⁷ (the records for some years are missing) there is no reference to William Cooper and in the later book for 1835¹⁷ the millwright's Walton Street premises are occupied by James Holland and there is no foundry.

In Mr. Cooper's time the County Gaol was situated alongside the rear of his property. The site of the Gaol was 'a narrow strip of ground, the frontage of which was occupied by the County Hall; it was bordered by the rear of the houses in Walton Street on one side, and the late White Hart' . . . 'on the other and it extended as far as the Bear Brook, which formed its Southern boundry.'¹⁸ It may have been a coincidence that the millwright's premises were so near to the County Gaol. What is certain is that work on the gaol mill was a factor in bringing William Cooper, who came from a London family of millwrights, to Aylesbury.

As early as 1799 Holden's London Trade Directory listed a Thomas Cooper of 149, Old Street as a millwright and washing-machine manufacturer. The 1819 and 1830 editions of Robson's Directory gave a T.W. Cooper, millwright and engineer at 149, Old Street (by 1835 it was occupied by Cooper & Moreland).

On February 1st, 1819, Thomas Willis Cooper wrote from 149, Old Street, to Thomas Tindal Esq., Clerk of the Peace for Buckinghamshire¹⁹,

'Sir

I received your's of the 27th Ult: wishing to know if I would undertake to put the Mill & Machinery in Aylesbury Gaol into a proper state as intended by Mr. Laffords Contract

.,²⁰

Mr. Cooper's letter continues with an offer to

undertake the work for £185. On the 25th of February of the same year he is writing again in reply to a request to specify in detail the work he would carry out²¹. Among other costs he refers to the providing of new stones made of the best French Burrs costing £26. (More commonly Peak stones were used; William Cooper paid only £3 - 5 - 0 for a Peak Stone.) These letters, written in 1819, probably marked the beginning of T.W. Cooper's connection with the Gaol, a connection which was continued by William Cooper as witnessed by a page of his general account book, headed 'To the Joale work' and his own correspondence with the Clerk of the Peace. In 1830 he wrote 'An estimate for alterations to the Tread Mill of Aylesbury Goal', 'To alter the speed of the tread weel for the Easement of the Labour and gaining more power . . .', the total cost to be £91 - 10 - 0, and he signs himself 'William Cooper Millwright of Aylesbury'²². He must have carried out the work but had difficulty in obtaining payment for in February 1831 he is writing to Mr. Tindal asking for payment, 'I have several large payments to make just at this time' and 'we have but 3 months credit for our iron'²³. A Note added to the letter, in a different hand, '- saw him & agreed to receipt Bill - ' suggests that the millwright was paid.

If work on the Gaol brought the Coopers to Aylesbury other factors must have contributed to the success of William Cooper's business. His connection with the influential Dell family²⁴ may have introduced him to many of his clients. If the reasons for his short-lived success in Buckinghamshire are obscure, so are the causes of his bankruptcy. The general account book shows few unpaid accounts, the largest being for work on the 'Joale', £43 - 19 - 8, and it is possible that he was owed a large sum on the Fulmer account.

After 1832 nothing further is known of the millwright²⁵. Only his two account books, the correspondence with the Clerk of the Peace and his brief appearance as a resident of Aylesbury in the Poor Rate Book give written evidence of his once flourishing business, although his work as a millwright may yet survive in some of the few remaining wind and water mills of Buckinghamshire.

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APPENDIX A

List of William Cooper's Clients

<i>Name & Place as written in account book</i>	<i>Page nos.</i>	<i>Type of mill or machine</i>	<i>Name & Place as written in account book</i>	<i>Page nos.</i>	<i>Type of mill or machine</i>
1. Anstess Quainton Anster Quainton (different spelling)	3v 32 40 40v 41 41v 43 44 44v 45 50 51 51v 55 56	windmill	25. Mr Deveral	25	Loosley windmill - bolting mill
2. Mr Anstay Ivinghoe Mr Astay Ivinghoe (different spelling)	Acc. No. 1 (in the alphabetical Index)	mill? type of mill, wind or water uncertain	26. Dyer Eaton Bray	21v 57v	mill? (water)
3. Anster Wadsdon	2		27. Mr Edwards	36	
5. Bail	32v		28. Mr Elliott Aston Abbots	17v	churn
5. Mr Baker North Marston	37	mill (windmill)	29. Mr Farnborough Stone	26v 28v 47v	watermill
6. Mr Ball	10v	mill, bolting mill 26	30. Flamar - Blackgrove	Acc. No. 13	
7. Ballard Winchendon	18v 48	churn	31. Flemmons	Acc. No. 11 7 29v 57v	windmill & watermill
8. Barret Edgborough	20	watermill	32. Flowers Blackgrove	8	mill? (water?)
9. Mr Berry cabinet maker	9v 49v		33. Flowers Lodgehill	8v	churn
10. Buckmaster Edlesborough	19 57v	mill?	34. Mr Goss— (?)	9v	
11. Buckmaster Slapton	27 57v	mill (water)	35. Mr Gaudrey	1 1v 4v	
12. Mr Burton Wadsdon	14	windmill	36. Mr Sam Gibbs	2	
13. Mr Carter Long Crendon	33v 55v	windmill	37. Mr Green Aylesbury	24	
14. Champness	30 30v	windmill	38. Mr Grover Tring	Acc. No. 10	mill?
15. Mrs Clarridge	22v 57v		39. Gurney (work for)	11 11v 12 12v	timber merchant
16. Mr Collins	16		Ivinghoe & Broughton mills	13	
17. Mr Coltman Mill at Wycomb	25	mill?	40. Mr Gurney Walton	19v 42v	hay machine
18. Wm Cooper Sen	2		41. Mr Hall Winslow	28v	mill
19. Mr Cox Bitchendon	39 47v		42. Mr Hearn	32v 47	chaff mc (machine)
20. Curtis Denham	19v		43. Hoare Wendover	Acc. No. 2 2v 46 56v	bean mill
21. Curtis Quainton	49	windmill (the old mill at Quainton)	44. Mr Hore	20v	watermill
22. Sir John Dashwood	10v 25	hay machine & mill	45. Mr House Grey	3v	
23. Mr R Dell Aylesbury	9	hay making machine	46. Mr Jackson	10 16v 22 36v 43v 52	
24. Mr Dell Brewer	34v 35 35v 42 54	hay making machine horse wheel	47. To the Joale work	37v 38 48v 54v	treadmill (Aylesbury Gaol)
			48. Jones	55v	
			49. Mr Key	27	churn
			50. W. Kingham Broughton Mill	Acc. No. 3 3	watermill
			51. Mr Lake	28	

<i>Name & Place as written in account book</i>	<i>Page nos.</i>	<i>Type of mill or machine</i>	<i>Name & Place as written in account book</i>	<i>Page nos.</i>	<i>Type of mill or machine</i>
52. Landon	31		67. Mr Ridgeway	2 57v	churn
53. Mr Layte	50v		68. Mr Rose Winchendon	21 57v	
54. Ledbetter	5v 17v		69. Mr Saunders Stone	Acc. No. 8	(windmill)
55. Mr Loosley	18 57v	watermill (Haydon mill?)	70. Sear Canterbury	5v 48	
56. Mr Mead	49		71. Mr Sear Ma(r)sworth	39	windmill
57. Mr Mor(es?)	28v	churn	72. Mr Simons Berryfield	13v 55v	windmill
58. Mr Parsons Brill	3v		73. Terry	10v	
59. Mr Pearsons	26		74. Mrs Troogood Whitchurch	Acc. No. 9 6 15	horsewheel, mill
60. Phillips Wendover	Acc. No. 7	windmill	75. Mr Turpin	52v 53	mill?
	5 25v 29 31 33		76. Winfield	24v 26 46v 57v	watermill
61. Mr Picot Chirs(?)	48			7v	windmill at Ivinghoe
62. Pursell Aylesbury	Acc. No. 5	watermill	77. Winslow Workhouse	24	hay machine
	4				mill (type uncertain)
63. Pursell Walton	28 47	watermill	78. Woodman with Mr Saunders	23v	windmill
64. Pursell Weston	Acc. No. 6	watermill			
	4v 14v 23				
65. Mr Read North Marston	34	churn			
66. Mr Redding Wendover Dean	34	machine (type unspecified)			

APPENDIX B

Workmen's names

From Fulmer mill job

Chandler R
Chandler Wm
Colsil
Cooper J
Cooper W
Nickleston
Offord Jorr
Rives
Sheppard E
Sheppard Wm
Underwood
Viccary
Winfield
Wood
2 labourers

From General Account Book

Bishop
Briney
Chandler R
Chandler W
Clark S
Coltman
Cooper John
Cooper Jos
Cooper Wm
Cox Wm
Fenshal
Gilbert
Jackson
Mack
Nickleston J
Offord J
Powell
Sheppard Edward
Sheppard G
Sheppard W
Smith
Veary R
Viccary
Ward J
Wheeler
White
Wood S
Labourer(s)
Apprentice(s)
Boy(s)

REFERENCES

1. Bucks Record Office Q/DA/ 23/2.
2. 'Mr Nicklin No 2 Bradford St Birmingham Edward Jackson Bound apprentice on May 1 - 1831 - and is to receive 2 shillings per week the fourth fifth sixth & seventh year of his time'.
'Borrowed of Mr W Owen Davis April 4 1828 the sum of 160 - 0 - 0'.
In 1829 a further £80 and in 1831 £60 was borrowed; £105 was paid back between 1829-31, then a note 'Gave W Davis Warrant of Attorney for 195 & interest

on Sep 1831.'
'Warrant of Attorney' is an archaic procedure which has now fallen into disuse. According to Blackstone (*Commentaries on the Laws of England*, 1803) a Warrant of Attorney given by the borrower to the lender of money by way of security enabled the lender, if not paid, to sue the borrower and obtain an automatic judgement without going through the full procedure. Information kindly researched by Mr. J. Stevens.

3. B.R.O. Q/DA 23/1
4. *Pigot & Co's Directory* 1830, 72.
5. *Ibid.* 72.
6. B.R.O. D/TL/ Box 40.
7. Horse-driven churns may well have been more common in the Vale of Aylesbury than previously realised. A horse-driven churn from Betlow farm, Long Marston is now in the Chiltern Open Air Museum. It is similar to the one from Bierton, now in the Science Museum. Information kindly given by Mr. J. Hawkins.
8. Information kindly given by Mr. W. King.
9. Possibly Beachendon Farm, between Stone and Upper Winchendon.
10. *Pigot's Directory* 1830, 73.
11. Bucks. Arch. Society pamphlet 478/25, Mr. T. Berry, cabinet-maker and upholsterer, of Market Place, Aylesbury.
12. B.R.O. PR/11/11/51 Aylesbury Poor Rate Book 1827. 'Jasper Jackson warehouse / Hearse House'.
13. Gibbs, R., *History of Aylesbury*, 1885.
14. James Dell (son of Isaac Dell), was born at Dudswell in 1783 and lived there until his death in 1846. He inherited his father's farm at Dudswell. In 1826 he purchased more land at Dudswell and the deed describes him as 'Ironfounder of Dudswell'. The foundry, first shown on a map of 1820, was built in the fields of Dudswell Farm and was in a building approximately 50 feet by 25-30 feet. The foundry appears to have been discontinued after James Dell's death in 1846. Information kindly given by Mr. John Hunt of Dudswell. Information researched for the author by Mrs. J. Davis.
15. Memmel: the port of Memel, now called Klaipeda in the Soviet Republic of Lithuania. It was for a long time, but not now, an important port for the shipment of timber from parts of Western Russia. The timber was of two main sorts, oak and softwood, the latter mainly pine and spruce. Either could have been used for parts of the mill or mill building. Information kindly given by Mr. J.D. Brazier of The Building Research Establishment, Princes Risborough Laboratories.
16. Bond Timber. Term unknown.
17. B.R.O. PR/11/11/51 1827; PR/11/11/52 1831-2; PR/11/11/53 1835.
18. Gibbs, *op. cit.*
19. Thomas Tindal (1783-1850), Clerk of the Peace for Bucks from 1813 to 1838. He also held the office of County Treasurer.
20. B.R.O. Q/AG/8/13 Correspondence of the Clerk of the Peace.
21. B.R.O. Q/AG/8/14 ditto.
22. B.R.O. Q/AG/11/29 ditto.
23. B.R.O. Q/AG/10/43 ditto.
24. Origins, *Bucks Family History Soc. Vol. 3* No. ~~2~~³ 23-25.
25. From 1890 to 1925 a William Cooper was a blacksmith of Tring. He was the only local smith who could really temper and sharpen the mill bills which are used to dress the millstones. Information kindly given by Mr. R. Grace.
26. The bolting machine of a flour mill. The flour is sifted through a cloth of a particular texture, called a bolting cloth. Instead of a cloth, a cylinder formed of wire-gauze of different degrees of fineness is sometimes used. (Oxford Dictionary.)