River Navigation at Oxford during the Civil War and Commonwealth

By I. G. PHILIP

"HE scene on the river at Oxford in the seventeenth century is, unfortunately, usually neglected by contemporary travellers and diarists. The west-country bargemen were well known to Pepys in London, but in their native upper Thames they seem to have been generally neglected as a source of amusement except by Robert Burton, of whom White Kennett wrote that ' nothing at last could make him laugh, but going down to the Bridge-foot in Oxford, and hearing the Barge-men scold and storm and swear at one another, at which he would set his Hands to his Sides, and laugh most profusely.'1 Wood spoke of the river traffic as of obvious importance, with barges and other vessels travelling daily to and from Oxford,² and later Celia Fiennes described the Thames as ' full of Barges and Lighters ' between Folly Bridge and Abingdon,3 but there has been a dearth of information on that traffic in the period 1642-60, and in his Thames Highway, Thacker wrote : 'it is a curious fact that for the next twenty-two years, a period covering the civil wars and the Commonwealth, the history of the River is, except for a vague complaint or two, a complete blank."4 Of recent years, the history of Thames navigation in the seventeenth century has been re-written.⁶ The twenty-two years are no longer a complete blank, but the lack of detail of some points justifies another note on the subject.

The organisation of river traffic at the beginning of the period is by now fairly clear. The Act of 160[‡] for making the Thames navigable as far as Oxford did not apparently have any great effects, for, although the Commissioners met, in 1611 they delivered timber to Sir Thomas Bodley for enlarging his Library, ⁶ which timber was to have been employed for making the Thames navigable to Oxford, but that work does not proceed.⁷⁶ A further Act was passed in

^a Fiennes, Through England on a Side Saddle, p. 29.

* Thacker, Thames Highway (1914), p. 100.

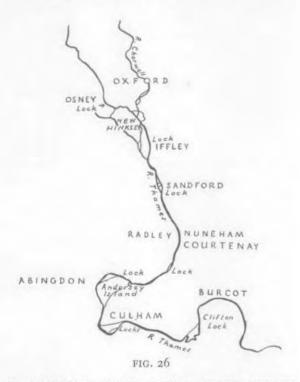
^b T. S. Willan, *River Navigation in England*, 1600–1750 (Oxford, 1936); and *id.*, ^c The Navigation of the Thames and Kennet, 1600–1750, ^c Berks. Arch. Journal (1936), XL, 146 ff.

4 Thacker, op. cit., p. 65.

¹ Kennett, Reg. & Chron., p. 321.

² Wood, City of Oxford, ed. Clark, 1, 427.

162³/₄ which urged that the river should be made navigable from Burcot to Oxford, and convenient ' for conveyance of freestone commonly called Oxford Stone or Heddington Stone from Bullingdon Quarre nerre the said Cittie '¹ to London and other parts, and for the conveyance of coal and fuel to the City



SKETCH-MAP OF THE THAMES FROM OXFORD TO BURCOT

Based on the 1-in. Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office.

and University. For a contemporary map of this portion of the river, preserved in the City muniments, see PLATE XIII : for a modern sketch-map, based on the 1-inch Ordnance Survey, see FIG. 26. Under this Act the first great improvements were made, pound locks were built at Iffley and Sandford some time before

¹ So far I have failed to find any specific reference to the conveyance of stone by barge in the period under review, except for the river-works themselves, particularly for the repair of the turn-pike at Swift Ditch in 1651.

1632,1 and in 1635 the first barge, according to Crosfield, came up from London to Oxford.² This synchronised with a further attempt to lessen the wear and tear on the roads to London. By a proclamation of 9 March, 1638,3 the use of four-wheeled carriages was forbidden, but Archbishop Laud, as Chancellor of the University, apparently obtained exemption for the University carriers, who continued to use four-wheeled waggons and more than five or six horses for each load. However, in 1638, on the petition of the inhabitants of Milton, Haseley, Tetsworth and Lewknor, Laud withdrew his support from the carriers, and advocated a reduction in the number of horses which any carrier might use for one waggon, thus attempting to ensure that overloading would not continue to ruin what he himself called, not roads, but ' those bad ways.'4 The result of this policy was further to encourage the new navigation, and that the divergence of heavy traffic from the roads to the river was well-nigh complete is illustrated by a petition to the King from Thomas Egerley, carrier between Oxford and London, in which he craved to be allowed to use a four-wheeled waggon instead of a two-wheeled cart, his carriage nowadays being only of books, trunks, and apparel and light and costly wares, for, as he pointed out, ' all great and heavy cariage and luggage wch. is brought from London to the Universitie & Cittie of Oxon. or thence to London is comonly conveyed by water." On 16 July, 1638, three years after the first barge reached Oxford, the river commissioners representing the City and University leased to Richard Farmer the lately erected messuage in St. Aldate's, with the wharf adjoining, and all benefits and profits at any turnpike or wharf between Oxford and Sutton Weir.6 This lease was for seven years at an annual rent of £60 to be paid half to the University and half to the City, and as part of the agreement, Farmer covenanted to build at the wharf ' one good and sufficient crane of oaken timber with cords, cables, brass, irons and other instruments fit and sufficient to load any goods that shall be brought unto the said wharf.' For purposes of organisation the stretch of river between Oxford and Sutton was then taken as a unit. A register book was to be kept at the wharf at St. Aldate's, in which should be entered all boats and barges going downstream, while a similar book at Sutton was to contain entries of all up-stream traffic. Fees were to be collected at Oxford and Sutton, where the keepers of the wharfs were to issue signed tickets which would be

¹ Willan, *River Navigation*, p. 89 f. See also Taylor, *Thame-Isis*, p. 17; and for an early description of the locks on the Oxford-Swift Ditch section of the river see Plot, *Nat. Hist. Oxford-shire* (1677), pp. 233-4.

² Crosfield, Diary, p. 80.

³ Rymer, Foedera, XIX, 130.

4 Laud, Works (1853), V, 211.

⁵ Bodl. MS. Wood F. 27, f. 9^v.

⁶ Bodl, MS. Twyne-Langbaine 1, f. 45 f.

sufficient warrant to allow the barges to pass through the intervening locks and weirs. The fees to be taken at turnpikes1 were 4d. for a flat-bottomed boat and 20d, for a barge, and at the weirs and locks the fees were 4d, and 6d., all which charges were to go to the City and the University or their farmers. The fees for wharfage, one of the lessee's perquisites, were 2d, for every load or ton of wares. There were other regulations, chiefly relating to damage done by the barges and their crews, and in order to check this damage, against which there were many complaints, the wharfingers at Oxford and Sutton were asked to take full details of the barges, the owner's name, the names of his servants, and the nature of the cargo. If any trespass was committed, and the barges not known, then the owners of all boats and barges which had passed that way within a space of six hours before or after the trespass, should make restitution. These were the chief orders made when the lease was granted to Farmer, and to these Twyne added a suggestion of his own which throws more light on the state of the river : ' It would do well for an order to be made, that when they cleane their boats, they flinge not ye rubbidge over into ye water, wch. in time may damme up ve wharfe, or ve course of ve water."2

For a few years this organisation was in force, and the rent of f_{30} a year appears among the receipts in the Vice-Chancellor's Computus. Then, when war came to Oxford, normal traffic was almost suspended, and moreover, as Oxford became more isolated as a royalist stronghold, the more important traffic was with the west, with arms brought from Weymouth and Bristol, and with stores sent to Gloucester. But in the early years of the Civil War due attention was paid to the importance of the river so recently made navigable. The Committee of Safety for the Kingdom wrote on 26 January, 164², to the Lord Mayor of London and the Committee for the Militia, 'We desire you to consider of some speedy way for guarding the river of Thames ; that no carriages be conveyed by water to Reading, Oxford, and other places upon the river without a strict search, to the end that no victuals, arms, powder, ammunition, or letters of intelligence may be conveyed to the King's army.'3 But the King's army took equal care to keep open the river and to preserve means of communication with the lower Thames. Among a collection of Oxford siege-papers in the Bodleian is a sheet of notes dated 22 May, 1643.4 These minutes of a meeting of the King's Commissioners⁶ record orders :

¹ A term used for the newly erected pound locks.

² Bodl. MS. Twyne-Langbaine 1, f. 49r.

^a Cal. S.P.D., 1641-3, p. 440.

⁴ Bodl. MS. Add. D. 114, f. 12.

⁸ For a time commissioners appointed by the King seem to have worked in conjunction with the Commissioners for the Barges appointed by the University and City.

- * That there be a perfect note taken of all boats at the towne and upon the river, and of the boatmen.
- ' That there be a stopp that none pass without a ticket of the Commission, and all boats to be searched.
- ' That all the boats upon the river be drawn to such places, as that they be servisable to the King, and be sure shall not be servisable to the enemy.
- ' The water bayly and Mr. Jo. Taylor-employed to give information of the boats and boatmen.
- ' Ensham ferry and Bablock hith-to be taken care of.'

But the cares of John Taylor and George Thorp, the water-bailiff, were extended to ordinary sewage-work as much as to problems of military necessity, as appears by a proclamation of June, 1643,¹ where these two were made responsible for keeping clean the streams which supplied the brewers of Oxford. This John Taylor was the Water Poet, who, having been arrested in London in November, 1642, for printing pamphlets against Parliament, was discharged, and then left London, travelling by river to Abingdon, and then to Oxford where he acted as assistant to the water-bailiff. He himself can best describe his work :

> ⁶ Then by the Lord Commissioners and also By my good King (whom all true subjects call so) I was commanded with the Water Baylie To see the River clensed, both night and dayly Dead Hogges, Dogges, Cats and well flayed Carryon Horses, Their noysom Corpses soyld the water courses ; Both swines and stable dunge, Beasts guts and Garbage, Street durt, with Gardners weeds and Rotten Herbage. And from these Waters filthy putrifaction, Our meat and drink were made, which bred Infection. My self and partner, with cost paines and Travell, Saw all made clean, from Carryon, Mud and Gravell ; And now and then was punisht a Delinquent, By which good means away the filth and stink went.^{'2}

If this was indeed the condition of the river it adds one to the many possible causes of the ' morbus campestris ' which broke out in Oxford in 1643.

Whatever the state of the river, it was never so bad as to prevent barge navigation at this time. In the Bodleian Library is a diary of reports sent in

¹ Madan, Oxford Books, 11, 269.

^a Taylor, Mad Verse, etc., 1644. (Spencer Soc., 1873).

by parliamentary scouts to Sir Samuel Luke stationed at Newport Pagnell,¹ and there are many mentions here of royalist transport. The earliest report of river transport, dated 28 September, 1643, ' That there are 10 loads of provision come weekly from London to Henley by water and so from thence in carts to Oxford,'2 suggests that the river was not navigable up to Oxford, but on 26 October, 1643, a scout reports that he 'sawe 3 peeces of Ordnance goe downe in a Barge from Oxford and great store of Amunition on Monday last to Redding,'3 and between Reading and Oxford the river was of supreme importance, for on 5 November, 1643, there is a report from Reading that ' they (the Royalist garrison) have finisht all the workes about the Town and drawen upp all the bridges and there is noe passage eyther in or out but by Water.'4 So there was a fairly consistent traffic by river from Oxford to Reading, Oxford drawing ammunition from Bristol or Weymouth and shipping it downstream by barge. The upstream traffic was of a different nature, for what were of greatest importance to Oxford were commodities brought from London, and these were usually taken from the barges at Henley, and then sent to Oxford by waggon. Occasionally this does not occur, as a parliamentary scout reports on 25 November, 1643, that ' there were 2 Barges loaden with sacke and sugar goeing to Oxford, hee asked them where they had it, they said at Henly for it came from London to Henly under Henly mens names.'5 Both parties evidently made use of the upper river, for the royalist garrison at Greenland House ' stop all passage by water and will not suffer any fewell to be conveyed that way to London,' but whereas the parliamentarians wanted chiefly fuel, there were hops and wine and coal and iron going up to Henley by barge, thence to be carted to Oxford (20 December, 1643),6 whence would come downstream '6 brasse peeces of Ordnance and a great number of Pikes, Musketts and Ammunition conveyed . . . to Redding by water. And . . . 2 great Iron peeces and as much Ammunition as a Barge could carry' for Greenland House (7 March, 1644).7

Despite the war, the Commissioners for the barges continued their work, and in the Vice-Chancellor's Computus under the year 1643-4 is a payment of f_{10} to Robert Panting, for mending the turnpikes by the Commissioners' order.

¹ Bodl. MS. Eng. hist., C, 53.

² Ibid., f. 76.

3 Ibid., f. 86v.

4 Ibid., f. 89r.

⁶ Ibid., f. 96^v. This system, with variations of place, is often noted. There is a similar report of 5 Dec., ' that all commodities which the Cavaliers want are sent from London to Wickham under Wickham men's names, and so sent in the night to Oxford by waggon loads at a time.'

⁶ Ibid., f. 105.

7 Ibid., f. 123*.

But the Commissioners were no doubt chiefly occupied with repair, for the barge traffic was mainly a matter of army commissariat and there was little scope for the ordinary carrier as long as there was no free trade with the district of the lower Thames. In November, 1643, the county petitioned the King to allow them free trade with London, for without that they would be unable to pay the weekly assessments,1 and this question was still under consideration late in 1644,² but so long as the war lasted, free trade was impossible. On the roads, carriers were robbed by both parties, and obstructions in the river made carriage by water equally perilous. Towards the end of 1644 locks were pulled down on the Thames, and in the House of Commons, in January, 164[±], it was ordered that a committee of Oxon., Berks. and Bucks. be appointed to investigate, to consider a remedy, and to rebuild these locks.3 There was, too, the discouraging prospect for the barge-owner of being pressed to join one side or the other in the war, and he had to be persuaded to pursue his ordinary traffic by a royalist declaration dated from Oxford in 1644, ' For the better encouragement of such as shall bring provisions into this city, or to serve the market,' where it is ordained that 'All the Barges and Boates employed by water about any of those services, and the Watermen who necessarily attend the same, during such their employments, shall have free liberty to passe and repasse without interruption.'4 Yet in these troubled times Oxford was never without its chief wharfkeeper. Richard Farmer, whose executors paid the University's share of the rent for 1643, was succeeded by Robert Panting, but neither found the tenure profitable, as may be seen from the University's accounts, which show that no rent for the wharf was paid in 1641, 1644 and 1645, while a quarter's rent in 164th and part of the rent for 1647 helped to increase the arrears. The Computus for 1650-2 shows that the delegates⁵ with the assent of Convocation wrote off £75 as a bad debt for the wharfage rents, and thereafter until 166%, though the heading ' Item de Portu, sive Kaio ' is included in the receipts, there is never any entry of money paid. Yet however unprofitable in a way the wharf may have been, the act of 1623 was never allowed to lapse, and the City, even when Oxford was still beseiged, continued to elect Commissioners of the barges,6 who with the University Commissioners were able to turn again to repairing the turnpikes after the surrender of Oxford and the end of war in the district. The first great work effected was the repair of Sandford lock in

1 Ibid., f. 96v.

¹ Cal. Clar. State Papers, 1, 251-2.

³ H. G. Journal, 2 Jan., 1645.

4 Bodl. MS. Add. D. 114, f. 103.

54 Delegati pro computis Vicecancellarii et Procuratorum audiendis.'

⁶ Hobson & Salter, Oxford Council Acts, 1626-66 (O.H.S. xcv), p. 129 etc.

1647, for which the University alone paid £155, and within the next two years another £40 10s. was paid for smiths' work and timber for the turnpike. Altogether the University spent £227 15s. 3d. on navigation business between 1643-50, although £11 15s. 11d. of this was not paid until 1652. This burden was apparently easily borne by the University, but with the City it was another matter, and in 1647 they had to borrow £150 for navigation expenses.¹

From 1650 onwards the records are more full for there is an early minute book² of the Barge Commissioners still extant, and there is information (in the Commissioners' minute of 11 April, 1651) of the wharf-house, and even of the lost property at the quay, consisting of a quantity of wood ' of a mans neare to Nuberry retained for a debt of £8,' a ' parsell of hops not known whoes they are,' a grindstone, a press, and 53 hundredweights of old iron left by Akers when he gave up the wharf. An inventory of the wharf-house and vard made two years later, when the widow Duffin succeeded William Giles shows no obvious signs of prosperity, and it is more profitable to turn to the boatmen and their business. The earliest Thames Commissioners' Book begins with the inventories and minutes of Commissioners' meetings,3 the first of which is dated 27 August, 1650, but the first note is at the end of the book : ' August the 14th daye 1650 was the first beginninge of John Spencer, being apovnted to be Clarke to the Comishoners for the watter-works, between Oxford & Burcutt.' Happily, with his first enthusiasm, Spencer went on to give a list of the boatmen, and a few statistics of the quantity of traffic on the river. First, the boatmen of Oxford are ' William Giles, John Howes, Robert Howes, Thomas Culle, William Stevens, Nicklis Cox.' Those 'out of Oxford ' are ' John Duffin of Abington, Nicklis Hoopper of Abington, Thomas Clarke of Sutton, Midleton of Sutton, Richard Townsend of Aynsam, John Pate of Aynsam, George Bech of Goringe, Edward Smith of Goringe, Thomas Gibbins of . . .' The first list of Oxford boatmen gives the names of those who are 'warned in,'4 below that list are the names of those who are not warned in, ' Thomas Medcalfe, Richard Shotterill, John Buckley, Nicklis Tawny, Thomas Noble, Will Pemerton, John Richison,

1 Ibid., pp. 147, 149.

^a This volume, entitled Old Thames Navigation Book, 1650–1711, was discovered by Mr.H.M. Walton in the office of the Clerk of the Peace, at the County Hall, Oxford, and is now preserved in the County Record Office. My thanks are due to the Clerk to the Oxfordshire County Records Joint Committee for according me every facility for studying this volume.

^a The Commissioners for 1651–60 mentioned in the minute book were : for the University, Dr. Gerard Langbaine (until his death in February 165%), Dr. John Wilkins, Dr. John Saunders (until the end of 1652), Dr. Joshua Crosse (possibly appointed on the death of Dr. Saunders, March 165%, but his name does not appear in the minute book until August 1654) ; for the City, Aldermen Henry Southam, Thomas Weekes, Humphrey Whistler, Martin Wright. Mr. Alderman Nixon was appointed a Commissioner in 1659 (Hobson & Salter, op. cit., p. 242).

⁴ I could find no definition of this phrase.

Edward Akers.' Then Spencer recorded the number of boats passing through the turnpikes and the payments to be made by the boatmen. William Giles had eleven boats' passing through between 10 August and 1 October, 1650, eleven boats went through in John Howe's name 8 August to 17 October, thirteen boats for Robert Howes 4 August to 17 October, and seven boats for Thomas Culle 22 August to 17 October. All these were to pay at the rate of 2s. a boat. There is a note of a few small sums due from others. Townsend of Evnsham, William Stevens of Hythebridge and Nicholas Cox of Ruley, and two notes covering a more extended period were sent in by Nicholas Hooper of Abingdon, the first of fifty-one boats ' passing from Sutton to Oxford,' 28 October, 1640, to 3 October, 1650, and the second of forty-six boats 'passinge through the turne pickes' from 1 October, 1649, to 22 August, 1650. There is another list of eight boatmen with the number of their boats passing through the turnpikes from the last account in October, to the then date, the end of February, 165%. The total in this list is a hundred-and-one boats with the addition of Robert Howe's barge, which passed through twice, being charged is. each journey. The numbers of each boatmen range from Thomas Clarke's three boats to John Duffin's twenty-six, but most have about fourteen passing through.²

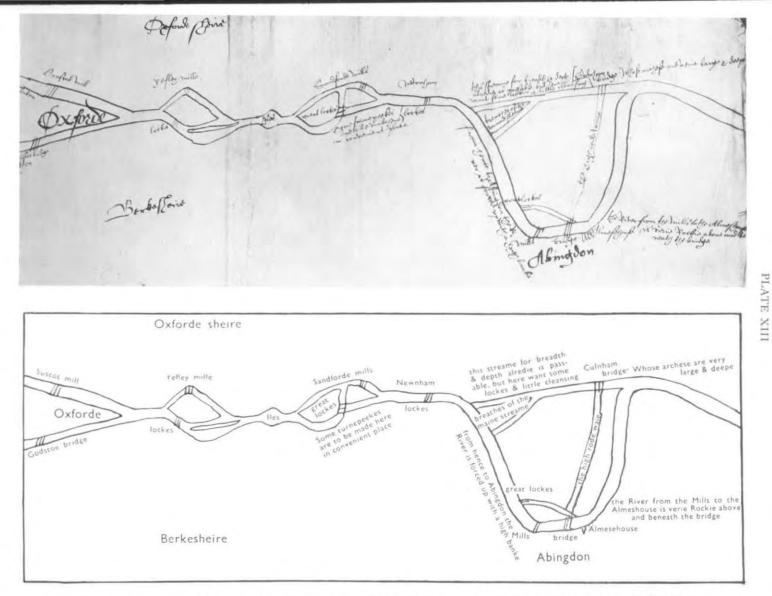
The Commissioners were not greatly concerned with the cargoes carried so long as the requisite payments were made, so that their minute-book throws little light on the usual trade.³ Sea coal was apparently one of the chief products brought upstream, and timber must have been sent downstream in considerable bulk, for when the wall at Swift Ditch collapsed, the Commissioners agreed, 17 October, 1650, 'That in regard of the great charges which the reparation of the works will require, and the present use which the State has of them for the transportation of their timber for the navy, that therefore a letter be writ to the Commissioners of the navy, that they would please to allow some trees towards the reparation of the works.' But of more local trade, that in malt was outstanding, and the only ' note on wharfage ' in the Commissioners' book (1 March, 165_{1}°), details 1480 quarters of malt, and $3\frac{1}{2}$ tons of potash standing at the wharf in the name of ten traders or brewers.

The earliest minute shows that the relationship between boatmen and millers on the Thames had in no way altered.

¹ The figures refer to the number of passages made, not the number of boats owned by the different boatmen.

² Each boat is rated at 2s. a passage, but a note added to the list explains that these boats were actually allowed passage at 12d. each, because ' the turnpikes were out of order and could not pass current.'

⁹ It is obvious that river transport would be most suitable for unusual cargo, as for instance, the body which Petty acquired for his study of anatomy, and which 'he brought by water from Reding a good while to read on, some way preserv'd or pickled.' (*Aubrey's Lives*, ed. Clark, 11, 141).



An early seventeenth-century sketch-map of the Thames from Oxford to Abingdon and Culham, apparently made for the Oxford-Burcot Commission of 1624. The sketch shows locks and weirs, with notes of proposed improvements, and of the general condition of the river. Swift Ditch, made navigable by the Commissioners, is here described as already 'passable, but here want some lockes & little cleansing.'

Reproduced by courtesy of the Oxford City Council, from the city muniments (MS. F. 5. 2. f. 13).

At a meeting in St. Mary's Church on 27 August, 1650, William Giles, Robert Howes, John Howes and Edward Akers brought their complaints before the Commissioners ; that John Quelch, miller of Sutton shut down his mills against them and laid their boats aground, and then exacted 6s. a passage, that Benjamin Fisher, miller of Sandford, exacted 3s. a passage, and Richard Adams, miller of Abingdon, took 10s. John Quelch denied the accusation that he shut down the mill to lay the barges aground, but admitted that there was a sandbank hindering the stream below the mill, which ought to be scoured by the landowner. He promised to take no more than 6s, 8d, for one lock ' for so many as come and go away together, and that it shall run 2 hours together by the hour glass,' but since the boatmen complained that they had not a foot of water because of the sandbank, it was agreed that the miller should not take any money till that obstruction be removed and the stream cleansed. Fisher of Sandford, likewise denied the charges against him, affirming that he never took money for water except when it was under grinding head, but he was enjoined by the Commissioners not to receive any money for water for a fortnight, keeping, in the meanwhile, a list of all the boats passing, especially noting how many boats passed with the same water together. The Commissioners would then allow him what would be considered reasonable after consulting Richard Ferkin, miller of Iffley, as to what he had charged for flashes1 when he leased the Sandford Mill. Following on this dispute between the boatmen and millers, the Commissioners issued further bye-laws for the regulation of navigation in 1652.² but two years later the same complaints are reiterated. The Sandford miller, ordered in 1652 to take no more than 10s. for a two hours' flash, when the water was below grinding head, and 6s. 8d. when above grinding head, was at a Commissioners' meeting of 21 July, 1654, accused of exacting from the boatmen at pleasure. The previous bye-law laid down that if a boatman drew a waste gate in order to pass Sandford, the miller was not to demand more than is. for a single boat, 15. 6d. for two, 2s. for three, and so on, but now when there were only one or two boats, he forced them to pay for a flash, and for one flash he demanded 30s. Not only this, but when the boats were coming up to the turnpike, the miller would cease grinding on purpose to lay them aground, to compel them to buy water from him. A similar complaint to this was brought against the miller of Abingdon, for when the boatmen bought water at Sandford, it was drawn away to serve the Abingdon mill, and the miller forced the boats to

¹ For a description of flashes and flash-locks, v. Thacker, *Thames Highway*, p. 7. Since there were at this time pound locks at Iffley and Sandford, the flashes of water which the millers sold were presumably necessary to allow the barges to float up to the pound locks. There would not be both flash and pound locks in one place, but the miller could control the level of the water below the mill through the pound lock and his own weir.

² Thacker, op. cit., p. 81.

stay two or three days before he allowed them a flash, for which he exacted 40s. Then lastly, against goodwife Duffin, the farmer of the turnpikes, the boatmen complained of illegal exaction, and neglect of her duties, one of which apparently was that the farmer or her deputy should help to get the boats through the turnpikes when they had bought their water at Sandford and Abingdon. Duffin's reply to the accusation of overcharging is interesting in its light on the increased size of the barges for she maintained that the charge of 5s. was justified, for one of the great boats now filled a turnpike, when formerly three or four boats might go into the turnpike at once. To settle these and other similar questions, new bye-laws were formulated on 27 July, 1654. It was ordered that anyone hindering the boatmen in any way was to pay 6s. 8d. of which half was to go to the injured party and half to the University and City. The miller of Sandford, as in the bye-laws of 1652, was to charge 10s. and 6s. 8d. for a flash, and the scale of charges for a few boats drawing a waste gate was reiterated. The miller of Abingdon, on penalty of 20s., was ordered to remove the boards which he had placed on the sill of the lasher to keep the water above grinding head, and the scale of his charges was fixed, that when the water at the lasher near Swift Ditch was under grinding head he should receive 13s. 4d. for a two hours' flash, and 6s. 8d. when the water was above grinding head. The same scale of charges, 12d. for one boat, 18d. for two, 2s. for three, which was in force at Sandford, was laid down for the miller of Abingdon, when the boatmen in their passage up the river could not pass from Culham to Swift Ditch without drawing the turnpike there. The final regulation covered all turnpikes, wharfs, locks or weirs between Burcot and Oxford, for the custodians of any of these were made subject to a fine of 20s, for any default or neglect by means of which any boat or barge should be stayed in its passage above the space of an hour. On all important points these regulations held valid throughout this period and an almost unaltered copy was annexed to Alice Panting's lease of the Oxford wharf in February, 1657. A few additions were made, as for instance in August, 1654, the charges were fixed for the miller of Sutton, of 20s. or 13s. 4d. for a two hours flash when the water was below or above grinding head ; and three years later the miller of Sandford was ordered not to permit any barge to pass through the lock during the night, for it had been found that manoeuvring a barge through the locks in darkness did ' often destroy them and put them utterly out of repair,' (13 October, 1657). On 2 February, 1657, he was forbidden to allow any boat to pass down through the lock without a ticket from the wharf at Oxford, this being the last regulation of the period in a matter which concerned most closely the Oxford wharfinger. On 17 December, 1657, the Commissioners ordered that Alice Panting who had just succeeded Eleanor Duffin at the wharfhouse, should receive 2d, the load for all cargoes loaded or unloaded at any other

wharf than that at Southbridge, but the general position is made clearer by an earlier minute, 9 January, 1651, where it was agreed, ' that for making effectual their former orders . . . that all such persons as shall land any goods of wood or sea coal to be sold by retail at any place within the liberty of Oxford or in St. Clements, other than at the common wharf, shall pay to the farmer, William Giles, for every load 4d., and for the indemnity of Giles and the better discovery of such goods, it is ordered that the keep of Sandford turnpike should take notice of all boats and barges loaded with wood and coals, passing through the turnpikes to Oxford, and take notice of the name of the owner, and if any boatmen refuse to give the name they shall be detained pending satisfaction.' But even the regulation of February, $165\frac{7}{8}$, does not seem to have been very effective, and at the end of the period, in the account of 1661, Alice Panting claimed an abatement in the arrears of her rent for the last three quarters ' by reason that all that time she could not receive the imposition of 2d. per ton for every load passing through the bridge in consideration whereof her rent was raised from f_{15} to f_{25} a year.' She further desired an abatement of her arrears of f_{10} in the accounts of August, 1659, for a year and a half wherein she had no order from the Commissioners to demand and recover the imposition of 2d, a ton.

For this or other reasons, the wharfingers of Oxford were always in debt, though the rent of the wharf and wharf house was reduced from £60 in 1642 to £25 in 1660. William Giles, by 21 October, 1652, owed £30 105. rent, a sum which was reduced on consideration to £15 8s. 6d. of which Giles paid £5, and he continued to pay off the debt in instalments until 1654. Ellen Duffin who succeeded Giles in March 1653, owed £54 14s. 3d. in rent by January, 165[‡], which debt increased by April, 1657, to £125¹ of which she paid £78 8s.

 $o_2^{1}d$. The Commissioners agreed to bring a law suit against the widow Duffin for the settlement of her debts, and demised the wharf at Southbridge to Alice Panting, at the annual rent of £25, but, as we have seen, she, too, rapidly accumulated arrears of rent. Not until the Restoration, in the accounts of 5 June, 1661, was there any comfortable balance of receipts over expenditure. Then £128 came to the Commissioners, being mainly arrears of rent,² and only £23 8s. 4d. was expended, but this was not to last, and Swift Ditch³ was soon again a cause of excess expenditure. Throughout the Commonwealth period the accounts

¹ The rent for two years and one quarter amounts to $f_{0.112}$ 10s., *i.e.*, she must have leased more than the Oxford wharf, the rent of which was at that time $f_{0.25}$.

² The annual rents at this time were, for the wharf and wharf-house (Widow Panting) £25, fo the Iffley turnpike (John Woodley) £15, for the Sandford turnpike (the same) £20, for the Swif Ditch turnpike (Richard Duffin) £18.

⁸ Swift Ditch is the stream south-east of Andersey Island, Abingdon, see map, FIG. 24 above. For a description see Thacker, *Thames Highway*, *Locks and Weirs*, p. 143 f. 'The Swift Ditch, reopened by the Oxford-Burcot Commission of 1624 . . . who introduced a pound lock at its head, and retained a weir about half-way along it : the route through Abingdon having probably become too shallow for use.'

were usually just made to balance, and the receipts were not rents so much as contributions from the University and City¹ to effect necessary repairs on the various turnpikes. As we have seen, \pounds_{112} 13s. $3\frac{1}{2}d$, was spent on the works in Swift Ditch in 164 $\frac{7}{8}$ and \pounds_{379} 1s. 8d. on Sandford turnpike ;² but then in October, 1650, the wall at Swift Ditch collapsed. This did not entirely prevent navigation, for the boats were able to ' pass at a reasonable water in the winter time, at a brack near the turnpike, to hinder which passage the miller of Abingdon caused some stakes to be driven in.' But the catastrophe involved the Commissioners in heavy expenditure for a full year, so heavy a work that it is obvious that the Swift Ditch turnpike, like those of Sandford and Iffley, was a modern pound lock with upper and lower gates,³ and a considerable structure of stone. The following excerpts from the accounts relating to Swift Ditch give some idea of the size and quality of the lock :

1651

June 6 It was then ordered and agreed that a hundred load⁴ of stones be forthwith provided from Kennington⁵ at as reasonable a rate as can be got . . . to be conveyed to Swift Ditch for the work there.

July 3 To Mr. Jordin for 4 ton and a half of freestone and for carriage to St. Clements 198, 6d.

July 15 To John Smith for carriage of 120 loads of stones from Kennington feild to the water side at 6d. per load £3

- July 16 To William Giles for carriage of 50 loads of stones by cart to Swift Ditch at 12d, per load f2 10s.
- July 16 To Thomas Culle for carriage of 39 loads of stones from Kennington to Swift Ditch f1 198.
- July 17 To Culle for carriage of 3 loads of stones from St. Clements to Swift Ditch

16s.

July 25 For carriage of 6 loads of freestone to Iffley

¹ Prior to 1642 levies had been laid on the craft guilds of Oxford for the navigation works. For instance, the Taylors' company paid £40 in instalments ending 1633 (Bodl. MS. Morrell 8, f. 7), but in the extant accounts of this and other guilds I find no entries for river works in this period.

² Willan, Berks. Arch. Journ. XL, 149.

^a Commissioners' minute on Swift Ditch reconstruction, 11 October, 1650: 'John White the Carpenter and Akers the Wharfinger are to make a dam for stoppage of the water at the upper gate.' The cost of lock-gates is shown in two later entries: 1662. 'Viner the carpenter in part for a payre of new gates at ye Turnpykes in Swift Ditch— \pounds_{15} .' 1672. 'John White for 2 pair of Gates, Jan. 7, \pounds_{32} '. (This was for Iffley turnpike).

⁴ Some definition of a load may be gained from two entries in the accounts for 1662 : ⁶ Paid for 18 load of freestone containing 438 foot at 3d. per foot— f_5 9s. 3d. Paid for the carriage of the said 18 load to ye wharf at 2s. 3d. the load and 12d. over for two loads being 30 foot of stone in each of them— f_2 12s. 6d.³

⁵ Before the beginning of the work, the Commissioners were too optimistic. The labour of the workmen in digging stones at Kennington was more than had been accounted for, ' the veyne proveing not as was expected,' so their wages had to be proportionately increased, 17 June, 1651.

July 26	To William Gurden for $9\frac{1}{2}$ tons of freestone at 3s. per ton
	£1 8s. 6d.
Aug. 2	To John Buckley for carriage of stones from Kennington & Iffley to Swift Ditch f_2 8s.
Aug. 2	To Culley for carriage of 16 loads of lime and 3 loads of freestone from St. Clements to Swift Ditch at 2s. the load f_{1} 18s.
Aug. 12	To Shottrill for carriage of six boat loads stone from Kennington to Swift Ditch
Aug. 16	To Mr. Smith for carriage of 114 loads of stones to the water f_2 178.
Aug. 23	To Buckle for carriage of 23 loads of stone from Kennington to Swift Ditch
Oct. 4	To Buckle for carriage of 22 loads of stones from Kennington to Swift Ditch £1 28.
hich the	is in the accounts of 26 July, 1651, amounted to \pounds 171 4s. 8d., of University contributed \pounds 80 and the City \pounds 82 10s. The expenses itch amounted to \pounds 173 14s. 3d. Similarly in the accounts of 5

which the University contributed £80 and the City £82 108. The expenses at Swift Ditch amounted to £173 148. 3d. Similarly in the accounts of 5 February, $165\frac{1}{2}$, the expenses amounted to £58 138. 9d. which was nearly all for repairs at Swift Ditch, while the receipts, £58 178. 3d., were mainly made up of contributions by the University and City.¹ Small payments were continually made towards the upkeep of the turnpikes, but of the larger sums there is £34 188. 11d. in the accounts of September, 1653, towards 'repayres at Swift Ditch in finishinge the howse ther and makeinge the stoope,' and in April, 1657, is the entry of £35 4s. being the 'accompt of Richard Gregory overseer of the Reparations made at the turnpikes at Sandford Mill,' and again in December, 1658, £14 188. 5d. to 'John Woodley for making the dams, and repairing the turnpike at Sandford.'

It is clear that in war, and still more, in peace, the river was an important means of communication for Oxford. The information that is gathered here is somewhat haphazard, for the period discussed has no unity, and the two halves can only be studied from very different sources of information. For the period of the Civil War the river was of military importance, and the references to it are scattered. During the Commonwealth the commercial value of river navigation is more apparent, although chiefly shown in the trouble and expenditure which both City and University were prepared to lavish on the 'turnpikes.' Possibly there may be discovered some of the register books of barges and cargoes which were kept at the wharfs in St. Aldate's and at Sutton, and then the real importance of river communication to Oxford might be justly assessed.

¹ In October, 1651, the City borrowed £100 ' towards payments in connection with the waterworks for the bringing in of the barges.' Hobson & Salter, *op. cit.*, p. 183.