

The English Bark Trade, 1660–1830¹

By L. A. CLARKSON

IN 1575 the Recorder of London informed the Lord Treasurer of England that “the ouse of Asshen barke dronke is an extreme percagon. . . [but] the ouse of oken barke dronke is the extremest binder that can be found in Physicke.”² The occasion of this advice was not, as far as is known, a deep distress in the bowels of Lord Burghley, but a discussion of the leather industry which used oak bark for tanning raw hides into leather, and continued to do so until the late nineteenth century. The manufacture of leather and leather goods was, by value, the most important English industry, after textiles, between 1680 and 1830, and one of the largest employers of labour outside agriculture. Roughly 90 per cent of all leather was tanned with oak bark, and the trade in this material, therefore, deserves more attention than it has customarily received from historians. This study is based upon estate records and tanners’ account books dating from the late seventeenth century, containing details of the stripping and marketing of bark; and on the accounts of the excise duties charged on leather tanned in England and Wales between 1711 and 1830.³

I

The first task is to calculate how much bark was used by tanners.⁴ This can be done from the excise accounts.⁵ For the years 1712–21 the surviving accounts record only the money raised by the duties, but the yield can be converted into quantities of tanned and dressed leather by assuming that £1 of revenue came from 15·7 lb. of leather.⁶ To obtain the quantities of tanned leather the result should be reduced by 15 per cent.⁷ From 1722 until 1798 the accounts give both the yield of the duties and the quantities charged, distinguishing between tanned leather and leather dressed with alum or oil. For the period 1799–1829 this distinction was not made in the accounts; however, during the 1790’s tanned leather comprised 94 per cent of all leather paying duty, so the quantities recorded after 1798 have been reduced by 6 per cent. The estimates of tanned leather production between 1712 and

¹ I am grateful to Dr E. H. Hunt and Dr C. J. Wrigley for commenting on an earlier draft, and to Mr W. J. Vennard for drawing the graphs.

² B. M., Lans. MS. 20, fo. 10.

³ The duties were imposed by two Acts—9 Anne, c. 11, and 10 Anne, c. 26—and not abolished until 1830. The accounts in the Customs and Excise Library, London, do not include the returns for Scotland, and this article is, therefore, confined to England and Wales.

⁴ Unless otherwise indicated, bark means oak bark. Until the 1790’s it was the only bark used by tanners; thereafter a little use was made of elm and larch bark.

⁵ The accounts are in the Customs and Excise Library, London. Accn. 1189 (Dup.), pp. 93–7, 229, contains the yield of the duties from 1712 to 1827 and the quantities of leather charged with duties from 1722 to 1829. Accn. 11863, pp. 116–47, distinguishes between tanned and other types of leather charged with duties between 1722 and 1798.

⁶ This was the approximate relationship between the yield and quantities between 1722 and 1742.

⁷ During the 1720’s, tanned leather accounted for 85 per cent of all leather charged with duty.

1829 have been multiplied by 4.5 on the assumption that between 4 and 5 lb. of bark were needed to produce 1 lb. of leather.¹ The result of this arithmetic is presented in figure 1.

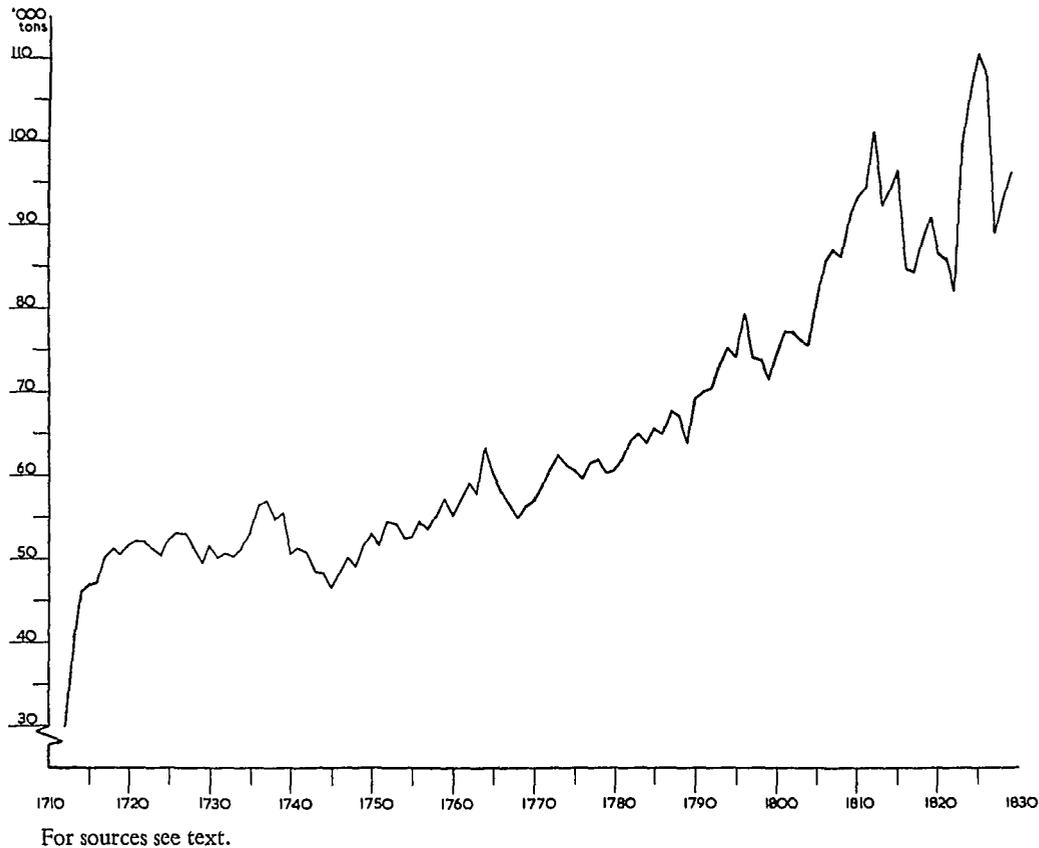


FIG. I

Bark consumption: England and Wales, 1710-1830

Since the estimates of bark consumption are based on the excise accounts they almost certainly understate the true level of demand for bark in England and Wales as tanners sometimes attempted to evade the duties.² However, the excise was well-administered by the standards of the eighteenth century, and under-recording was probably not serious except in the first few years. Furthermore, the duties imposed in 1712 remained unaltered for a century. In real terms their burden fell as prices rose very gradually from the 1750's and sharply after 1790.³ Thus the financial

¹ The actual amount of bark required depended on the quality of the bark and the thickness of the leather being processed. The basis for choosing a multiple of 4.5 is the evidence given by tanners to two parliamentary committees in 1812-13 and 1816.—S.C. on *Petitions relating to the Duty on Leather*, B.P.P. 1812-13, IV, p. 611; S.C. on *the State of the Laws relating to the Manufacture of and Duties upon Leather*, B.P.P. 1816, VI, p. 115.

² See C. & E. Library, *Excise Trials, Customs* 103/113, pp. 297-407, 413-558; 103/89, pp. 53-82; 103/38, pp. 483-500.

³ See Sir W. Beveridge, *Prices and Wages in England*, 1939, pp. 679-80, 739-41. At 1½d. per lb. the duty was normally the equivalent of 12-15 per cent of the selling price of leather, falling in burden after 1790.

incentive to evade the excise duties declined until duties were doubled in 1812. A tanner in 1798 "imagined the annual consumption of bark to be around 70,000 tons a year,"¹ a figure that was fairly close to the estimate derived from the excise accounts. The level of bark consumption was determined partly by the number of hides available for tanning—which affected the price of the finished leather—but mainly by the size of the population, since more than half the output of tanned leather was used for footwear, the demand for which was inelastic. Before 1750, the output of tanned leather grew very sluggishly compared with total industrial output: population growth was stagnant and the rise in real incomes, with its consequent demand for better quality footwear noted by Professor John, did not increase the *per capita* demand for leather. After 1750, the combined effects of population growth and an increasing demand for leather from agricultural and industrial expansion brought the rate of growth of leather production closer to the growth of total output. The consumption of bark increased at an accelerating rate and by the 1790's a serious shortage had emerged which may even have acted as a brake on the expansion of leather output.²

To the demand from tanners in England and Wales must be added the sales of English bark to Ireland, as recorded in the customs ledgers.³ The trade to Ireland developed in the late seventeenth and early eighteenth centuries, following restrictions on the import of Irish cattle into England, which encouraged beef production within Ireland and increased the supply of hides available in that country for tanning. Some raw hides were exported to England, but many were tanned in Ireland and English bark was imported to supplement local supplies. Shipments of bark to Ireland increased after the excise duties were imposed in England, for there was then an advantage in tanning hides in Ireland where no duty was charged.⁴ English tanners petitioned Parliament several times between 1711 and 1717 asking for a ban on bark exports. Although the pressure was well organized it was frustrated by what one M.P. called darkly "the Irish interest," working in combination with owners of woodlands who favoured an unrestricted outlet for their products.⁵

¹ *H. of C. Journals*, LIII, 1797-8, p. 544.

² The production of tanned leather, and total industrial production, grew as follows:

Annual percentage rates of growth (1800 base)		
	Tanned leather	Total real output
1725/45-1745/65	0.2	0.8
1745/65-1765/85	0.6	0.6
1765/85-1785/1805	0.9	1.5
1785/1805-1805/25	1.0 (all leather)	—

Sources: Excise statistics, as in p. 136, n. 5; P. Deane and W. A. Cole, *British Economic Growth, 1688-1959*, Cambridge, 1962, p. 80. For a generalized account of trends in leather production in the eighteenth century see T. S. Ashton, *Economic Fluctuations in England, 1700-1800*, Oxford, 1959, p. 35, n. 15, pp. 39, 133, 148, 153; and A. H. John, 'Agricultural Productivity and Economic Growth in England 1700-1760', *Jnl. Econ. Hist.*, xxv, 1965; reprinted in E. L. Jones, *Agriculture and Economic Growth in England 1650-1815*, 1967, pp. 172-89, esp. pp. 178-9. A more detailed analysis of the growth of leather production is contained in my forthcoming book on the English leather industry between 1500 and 1830.

³ If there was any traffic of English bark into Scotland, it went by unrecorded routes overland.

⁴ See R. C. Gwilliam, 'The Chester Tanners and Parliament 1711-1717', *Chester Archaeological Society Journal*, 44, 1957, pp. 41-9; E. McCracken, *The Irish Woods since Tudor Times*, Newton Abbot, 1971, pp. 80-1.

⁵ Gwilliam, *loc. cit.*, p. 42; *H. of C. Journals*, xvi, 1708-11, p. 602; xvii, 1711-14; pp. 249, 256, 556-7, 567-8,

Initially only a few hundred tons a year, exports reached 3,100 tons by the 1720's; 5,600 tons by the 1760's; 6,400 tons by the 1780's; and 8,100 tons a year by the early 1790's.¹ Thereafter exports declined, and by the end of the century Irish and English tanners were together lamenting the scarcity and high price of bark.

Taking English, Welsh, and Irish consumption together, the total demand for bark during the 1720's and '30's fluctuated between 55,000 and 60,000 tons a year, falling during the late 1730's and early 1740's, but rising again during the next twenty years to about 70,000 tons by 1764. A brief fall in demand in the second half of the 1760's was followed by generally increasing demand during the 1770's and '80's until, in the early 1790's, it stood in the region of 80,000 tons a year. As demand increased there was a search for substitutes,² and a growing import of bark. For most of the eighteenth century, imports had been restricted to an occasional consignment intended for re-export to Ireland. However, in 1792, 9,600 tons of bark came into England from Europe, but war with France stunted the trade.³ In 1816, a depressed year, 4,500 tons of bark were imported; within ten years imports had jumped to 43,000 tons and by 1830 to nearly 49,000 tons.⁴ Allowing for substitutes and imports, English woodlands probably supplied a maximum of about 90,000 tons of bark a year in 1810-15. By the 1820's, home production had probably fallen to between 60,000 and 70,000 tons a year.

In order to assess the importance of bark as an agricultural product, quantities must be converted into values. This is not easy since the evidence of bark prices demonstrates in an extreme form the weaknesses of eighteenth-century price statistics. There are plenty of price quotations waiting to be disinterred from the vaults of landed estates, but they obstinately refuse to be disciplined into averages representative of bark prices throughout England. The first difficulty arises because oak bark varied in quality. The best bark came from the young trees of twenty years' growth cultivated in coppices. At the other extreme, gnarled, dried-up bark, stripped from octogenarians destined for the shipyards or removed from collapsing centenarians, was less valuable. To complicate matters further, recorded prices were sometimes for bark still on the trees and sometimes for peeled bark delivered to an urban centre. Another problem was that bark was bulky and friable, frequently grown in inaccessible places, and expensive to transport. Local scarcities sometimes raised prices high above those elsewhere, particularly in London which pro-

671. The *H. of C. Journals* record the agitation of tanners who opposed the export of bark. For an example of the views of landowners see "The Humble Petition to [Parliament] of . . . the Principle Inhabitants of . . . Troutbecke and Applethwaite in . . . Westmorland . . . and many others, owners and workers in Wood and Barke" (no date).—Kendal Record Office (hereafter K.R.O.), WD/Bro. vol. xiv (125).

¹ McCracken, *op. cit.*, pp. 80-1; *H. of C. Journals*, xviii, 1714-18, p. 568; xxxiii, 1770-2, p. 617, *House of Commons, Accounts and Papers*, B.P.P. 1785, vi, no. 81; *Irish H. of C. Journals*, xxxix, 1790, p. cclxxxviii; xvi, 1795, p. clxiv.

² Elm and larch bark were the most important. See *Patents for Inventions: Abridgements of Specifications relating to Skins Hides, and Leather*, A.D. 1627-1860, 1872, nos. 1977, 2054, 2618; *H. of C. Journals*, lxxi, 1797-8, pp. 543-5; *S.C. on Acts relating to Tanners, Curriers, Shoemakers and other Artificers Occupying the Cutting of Leather*, B.P.P. 1807, ii, p. 299; B.P.P. 1816, vi, pp. 7, 13, 21, 24, 39.

³ P.R.O., Customs 5/1a. ⁴ P.R.O., Customs 5/5, 5/14, 5/19.

duced more than 10 per cent of the nation's leather.¹ Tanners and dealers were therefore compelled to extend their supply lines into more distant territories, causing prices there to rise in the process. Thus, although there were marked regional variations, prices tended to move together in a very general way, particularly in the late eighteenth and early nineteenth centuries.

The greatest problem is caused by the welter of measures by which bark was sold, themselves a reflection of the fragmented nature of the market. During the eighteenth century, bark was frequently sold by volume; in the late eighteenth century, however, sales by weight became common. There are two main problems to solve: the relationship of the various measures of volume to one another, and the relationship between units of volume and units of weight. The most important volume measures were loads, yards, and quarters. A load was a variable quantity, determined by the size of the cart in use. On the Filmer estates in Kent in the early eighteenth century it contained only 40 yards of bark. On the other hand, bark was sold in Sherwood Forest in 1788-9 by the load of 70 yards. But these seem to be limiting cases. According to J. E. T. Rogers, a load contained 42 yards of bark at Oxford, and 55 yards at Eton College in the seventeenth and eighteenth centuries. Sir William Beveridge, who also used the Eton College material, found that the load there more often contained 50 than 55 yards, and this figure has been used throughout this study.² The link between volume and weight is established by the load. By the late eighteenth century the load of 50 yards had become standardized at 45 cwt., and this figure has been applied to the whole period, 1660-1830. Assuming that the hundredweight contained 112 lb. and that there were 20 cwt. in a ton, it is a fairly simple matter to turn yards and quarters into weight, and to calculate factors for converting bark prices, however expressed, into pounds per ton.³

Some evidence of bark prices during the eighteenth and early nineteenth centuries is summarized in figure II. The continuous line represents prices of bark sold by Eton College.⁴ Compared with bark prices from almost all other sources, the Eton prices were very low, probably because the college authorities sold bark while it was still on the trees, leaving the purchasers to pay the expenses of peeling and

¹ L. A. Clarkson, 'The Leather Crafts in Tudor and Stuart England', *Ag. Hist. Rev.*, xiv, 1966, p. 27.

² Kent Archives Offices [hereafter K.A.O.], U412 E10; *H. of C. Journals*, XLVIII, 1792-3, p. 481; J. E. T. Rogers, *History of Agriculture and Prices in England*, vi, Oxford, 1887, pp. 358-60; Beveridge, *op. cit.*, p. 137. A yard is interpreted to mean a cubic yard (although it is never described as such in contemporary records) and was therefore 46,656 cubic inches. A quarter has been assumed to contain eight imperial bushels, each bushel containing eight gallons. Since a standard gallon of dry measure contains 277.25 cubic inches, a yard contained 2.63 quarters.

³ *H. of C. Journals*, XXXIII, 1770-2, p. 613; F. W. Steer, 'The Account Book of an Eighteenth Century Maldon Tradesman', *Essex Review*, LVII, 1948, p. 47; J. Haviland, *The Improved Practical Measurer*, 1817, p. 496; R. E. Zupko, *A Dictionary of English Weights and Measures from Anglo-Saxon Times to the Nineteenth Century*, 1968, p. 100. In the 1790's bark was occasionally sold in the royal forests by the "coppice load," containing between seven and eleven "hundreds."—*H. of C. Journals*, XLVII, 1792, p. 268. Some sales of bark were made at the rate of 21 cwt. per ton (e.g. Gloucestershire Record Office [hereafter G.R.O.] D451 E529). The most important conversion factors are as follows:

to convert shillings per quarter into pounds per ton, multiply by 2.92;

to convert shillings per yard into pounds per ton, multiply by 1.11;

to convert shillings per load into pounds per ton, multiply by 0.022.

⁴ Beveridge, *op. cit.*, pp. 145-7.

transport.¹ Prices were stable over many years, perhaps reflecting the nature of long-term contracts made with the purchasers of bark. If anything, prices were higher between 1660 and 1690 than they were in the next hundred years, possibly because the demand for bark was stimulated by an abundant supply of hides available to tanners.² There was a slight upward trend in Eton College series from the mid-1740's to the mid-1760's, corresponding with a growth of leather production throughout England, and a more pronounced increase in the 1790's and early 1800's. The Eton prices perversely increased in 1816-17 at a time when the leather industry as a whole was depressed; thereafter, bark prices at Eton declined, as did prices elsewhere.

Figure II also records several hundred price quotations (many of the symbols represent a dozen or more quotations) gathered from various sources. The entries cover four broad regions. The best represented is the north-west, comprising Cumberland, Westmorland, and north Lancashire. London and the Home Counties include, in addition to the metropolitan area, Essex, Kent, Surrey, Sussex, and Hampshire. The west of England prices come from Gloucestershire, Wiltshire, and Somerset, while the north-east is represented by prices from one estate only, in County Durham. Finally there are a few quotations taken from royal forests in various parts of the country.³ No attempt has been made to average these prices. Their most striking feature is their diversity. In 1785, for example, prices ranged from 9s. to £13 per ton, reflecting differences in quality, markets, and the nature of the price quotations, some including and some excluding peeling and transport costs. Differences in estate management probably also caused prices to vary; the crown forests, for example, were notoriously badly administered in the eighteenth century, and the price of bark sold from them was invariably low. But with the exception of the royal forests and one or two quotations from Kent, all the individual prices shown in figure II were substantially higher than the Eton series. Perhaps, therefore, the Eton prices should be doubled, on the ground that the cost of stripping doubled the purchase price to the tanners,⁴ in order to get a very approximate guide to the price of bark in England and Wales at the point of production. If so, tanners paid at least between £165,000 and £198,000 a year for bark during the 1720's and 1730's. The amount fell in the late 1730's when both demand and prices were depressed. Thereafter prices and demand strengthened and by the 1760's tanners were probably spending over £200,000 a year on bark. By the early

¹ See below, pp. 144-5.

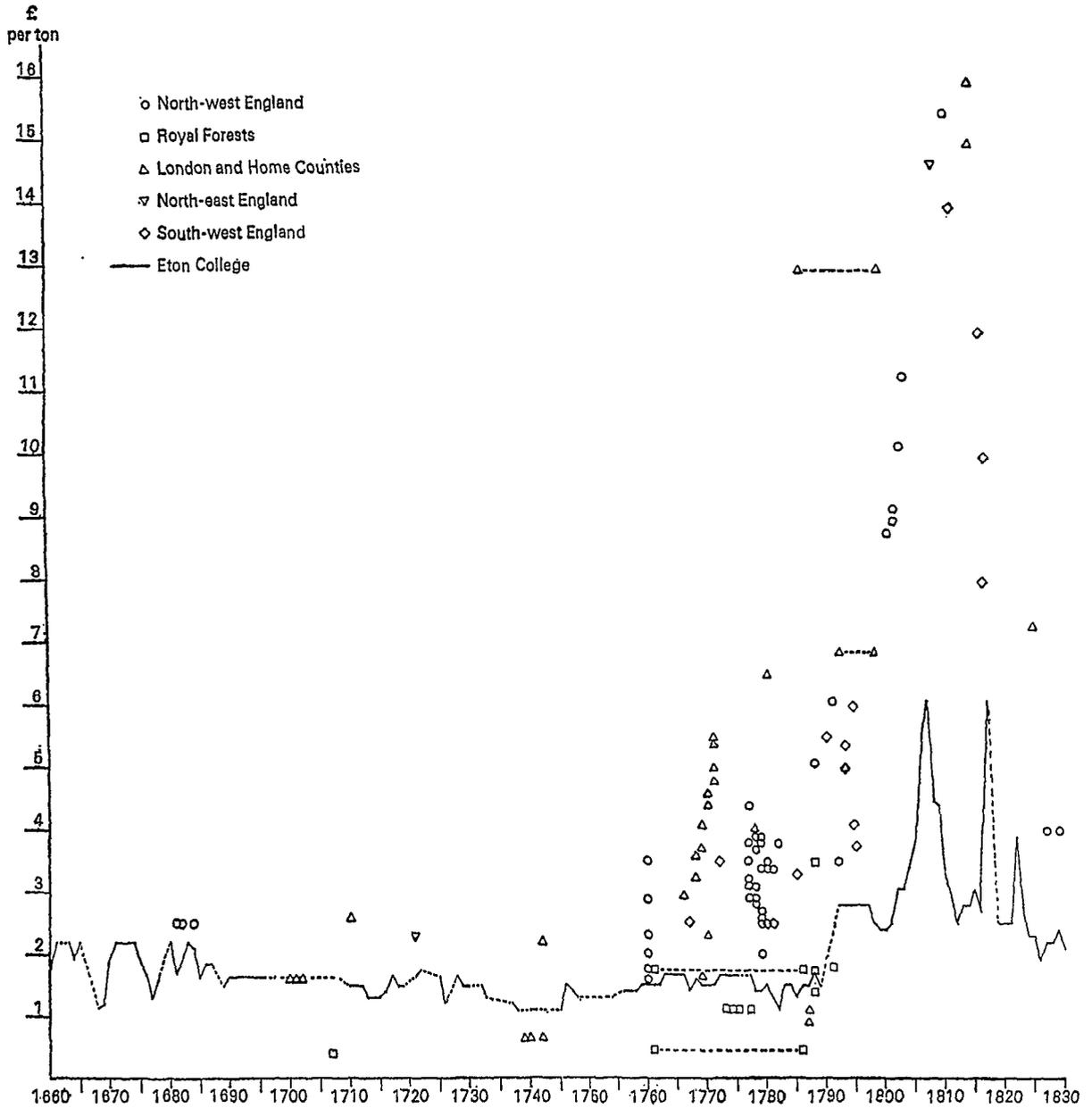
² Complaints of an excessive supply of hides were often made during the 1660's and 1670's. See P.R.O., P.C. 2/88, p. 71; *Cal. S.P.D.* 1675, pp. 369-70.

³ The sources are as follows: *North West*: Carlisle Record Office [hereafter C.R.O.], Lonsdale Estates, D/Lons/; Egremont Estates, D/Lec/; solicitors' records from Cockerham, D/Ben/4150; K.R.O., Fleming estates, WD/Ry. *London and Home Counties*: *H. of C. Journals*, xxx, 1765-6, pp. 613, 614; lIII, 1797-8, p. 544; B.P.P. 1812, iv, pp. 602, 619; P.R.O., C.107/160; Steer, *loc. cit.*, p. 81; K.A.O., U 120 E10, U 49 E5/1, U 145 E15. *West of England*: *H. of C. Journals*, xxx, 1765-6, pp. 613-15; xLIII, 1787-8, p. 572; B.P.P. 1816, vi, pp. 39, 41, 127; G.R.O., D36 E7, D421 E52 E55. *North East*: County Durham Record Office [hereafter D.R.O.], Salvin Estates, D/Sa/E. 731. *Royal Forests*: *H. of C. Journals*, xLIII, 1787-8, pp. 572, 619; xLV, 1790, p. 178; xLVII, 1792, p. 106; xLVIII, 1792-3, pp. 481, 504.

⁴ For evidence supporting this assumption, see below p. 150.

1790's expenditure probably reached more than £300,000 a year, and exceeded £1 million a year in the early nineteenth century. After the Napoleonic Wars the amount spent declined sharply.

Tantalizingly vague as these figures are, they enable us to put the value of the bark trade into perspective. The most important agricultural by-product in England



For sources see text.

FIG. II
Bark prices: England, 1660-1830

and Wales was wool, the output of which was worth, according to contemporary estimates, about £2 million a year at the end of the seventeenth century, over £2·1 million in 1741, £3 million in the 1770's, and between £5·5 million and £6 million by the end of the century.¹ In the 1720's and '30's, therefore, the total amount of money spent by tanners on bark was possibly the equivalent of 8 or 9 per cent of the proceeds of wool sales. This figure fell to 5 per cent or less in the early 1740's, and then rose again to around 7 per cent in the 1760's or 1770's. By the beginning of the nineteenth century the value for bark demanded by tanners may have been the equivalent of 10 to 15 per cent of the value of wool production.

II

Before attempting a closer assessment of the economic importance of the bark trade it is necessary to investigate its structure. The fundamental fact about bark was that it was not grown because tanners needed it, but as a by-product of timber and wood fuel. Bark could not be removed from growing trees without killing them, so tanners and bark dealers had to buy bark as it became available in response to forces over which they had little control. The supply was highly inelastic in the short-run and prices fluctuated sharply. During the Napoleonic Wars, for example, when the demand for leather rose in response to military requirements, bark prices rose more than threefold.² When the war ended in 1815 the demand for leather declined and the price of bark fell to a point where, in some parts of the country, it was below the cost of peeling it from the trees.³ In the long-run, supplies of bark kept more or less in line with the requirements of tanners since, in a very general way, leather and timber were in joint demand by domestic and industrial consumers. As the demand for timber grew during the late seventeenth and eighteenth centuries there was an increasing cultivation of coppices and a more systematic exploitation of natural woodlands, and as the output of timber and wood fuel increased the supply of bark increased as well. However, woodlands competed with other forms of land-use and the systematic production of timber required a long-term view of land-use that many landowners did not possess when faced with alternative crops offering quicker returns. Even in the long-run, therefore, tanners could not hope that their needs would be adequately met from domestic sources.⁴

The uncertainties surrounding the supply of bark shaped the arrangements tanners made to satisfy their needs. The fatalistic might hope that every year enough trees would fall down in their neighbourhoods, but this was not a recipe for successful business, and most tanners needed more bark than could be left to chance. With the aid of some crude arithmetic it is possible to estimate the amount of bark the "average" tanner used in the early nineteenth century. There were nearly 6,000

¹ P. Deane, 'The Output of the British Woollen Industry in the Eighteenth Century', *Jnl. Econ. Hist.*, xvii, 1957, pp. 209, 211, 216, 218.

² B.P.P. 1812-13, iv, p. 602. See also figure II. ³ B.P.P. 1816, vi, p. 86.

⁴ For a discussion of these points see R. G. Albion, *Forests and Sea Power: The Timber Problem in the Royal Navy*, Cambridge, Mass., 1928, ch. III, *passim*. See also *H. of C. Journals*, III, 1797-8, pp. 544-5, where it is stated that the increased demand for naval timber had temporarily eased the serious shortage of oak bark.

tanners in England and Wales in 1841.¹ Ten years earlier tanners had used roughly 95,000 tons of bark (one-third of it imported), or about 16 tons per tanner. It is very difficult to judge how many oaks were needed to yield this amount of bark since trees come in all shapes and sizes. A tree of forty years' growth contains roughly 100 cubic feet of timber and can be expected to yield 9-12 lb. of bark per cubic foot, equivalent to 8-10 cwt. per tree. In 1739 twenty oaks felled near Chart-ham in Kent yielded 3.1 loads of bark, or nearly 7 cwt. per tree. In the early nineteenth century, oaks eighty years old gave about a ton and a quarter of ship-building timber and therefore approximately 7½ cwt. of bark, as well as bark coming from those parts of the tree unfit for shipbuilding. An average tanner, therefore, used at the very least the bark of three or four dozen mature trees a year, or even more coppice oaks, which provided the finest bark.²

A glimpse of the way in which tanners organized their supplies is provided by the account book of John Nicholson a tanner of Cockermouth, Cumberland, in the 1770's.³ In 1778 he bought "about 600 quarters of Bark this year" in twenty-one separate lots, and from at least twelve different locations. The majority of his suppliers lived at Wasdale and Eskdale, fifteen to twenty miles south of Cockermouth, but he also bought bark at Bootle-in-Furness more than thirty miles away. Nicholson's account book covered the period 1778-82 and shows that he had his regular suppliers. This was common, and the connection between growers and tanners sometimes lasted for many years. In 1659, for example, Sir Daniel Fleming of Rydal Hall in Westmorland sold "the bark off three blowne trees" to James Dickson of Coniston; nearly a quarter of a century later the Dicksons were still buying bark from the Fleming estates.⁴ Both tanners and landowners benefited from established contacts. Since bark was not produced in direct response to price, prospective purchasers had much to gain by maintaining links with potential suppliers, who, in their turn, found an income by selling the by-products of timber and wood-fuel.

Bark was often bought while it was still on the trees. In August 1721, for example, Bryan Salvin of Croxdale, County Durham, agreed with Francis Hamson, a tanner from Durham City, to sell to him all the bark of any oaks that he, Salvin, might fell, at a fixed price of 8s. a quarter.⁵ A similar arrangement operated on the Filmer estates near Chartham, Kent, where the account book for 1719 noted "that Mr. Daniel Endesbury Tanner in Long Lane Southwark gives 40s. per load for Tan delivered at Mr. Hall's Key Maidstone. . ."⁶ A more formal agreement was made in 1723 between Sir Baldwin Conyers, Bt, the owner of coppices in the Forest of Dean, and William Harrison, a tanner of Newnham in Gloucestershire, whereby Harrison was given a lease for twenty-one years of Conyers, coppice bark for £60

¹ 1841 *Census, Great Britain: Occupation Abstract*, B.P.P. 1844, xxvii, p. 281.

² The calculation of bark yields are based on the following: K.A.O., U 120 E9; Haviland, *op. cit.*, pp. 2-5; Albion, *op. cit.*, p. 9; F. N. Howes, *Vegetable Tanning Materials*, 1953, p. 85; H. L. Edlin, *Trees, Woods and Man*, 1956, p. 8; McCracken, *op. cit.*, p. 80.

³ C.R.O., D/Ben/4150.

⁴ K.R.O., WD/Ry no. 33b. Account book entries dated 29 Sept. 1659, 18 July 1677, 1 Jan. 1681/2.

⁵ D.R.O., D/Sa/E731, p. 11. ⁶ K.A.O., U 120/E10.

per year. Conyers agreed to fell an average of 2,000 cords of wood a year and permit Harrison reasonable access into the woods. Harrison for his part agreed to pay the rent in half-yearly instalments and to avoid damaging the coppices.¹ A slightly different agreement between John Bathurst, a proprietor of coppices in Lydney, and John Probyn, a tanner from Wallstone in Gloucestershire, illustrates another aspect of bark sales. In April 1790 Probyn bought for £40 the rights to an estimated 55–65 tons of bark still attached to growing trees. Until the end of July Probyn's employees were allowed to enter the woods to "strip, Rank, Dry, Harvest and Weigh, take and carry away" the bark and, in addition to the initial £40, Probyn paid £5 7s 6d. for every ton of bark cut.² As was common in the Forest of Dean, costs of peeling were borne by the buyer. According to a timber surveyor writing in 1817 this was the universal practice. Possibly he was thinking of the south of England, for on estates in Westmorland, Cumberland, and County Durham the expenses of removing the bark were met by the sellers.³

Whoever paid the stripping costs, the procedure for harvesting was the same. The trees for peeling were marked, and carpenters and peelers were hired to fell them and remove the bark. The easiest way of peeling was to take the bark from trees that were still standing, but more often trees were stripped after being felled. The peelers used an iron 'spud,' consisting of a rod about two feet long, with a handle at one end and a point shaped like the ace of spades at the other. The bark was removed in pieces about two feet long and as wide as the circumference of the tree permitted. Dead outer bark and lichen was scraped away and the strips were propped up to dry in the sun and wind. The lease drawn up in 1723 between Conyers and Harrison provided that Conyers should "cutt proper and sufficient Lights in the Coppices for drying the bark and also to allow the said William Harrison. . . the use of a Storehouse. . . to house the saide Barke untill he can conveniently remove or carry away the Same." Drying was usually complete in about a fortnight and the bark was taken under cover for "hatching" into pieces two or three inches long, ready for packing into sacks.⁴

By about the third quarter of the eighteenth century, if not earlier, the labour-intensive operation of hatching bark by hand was sometimes replaced by bark-grinding mills. In their simplest form they consisted of an upright grindstone with a toothed rim, propelled by horse power around a circular trough. More sophisticated versions were driven by water and practically any kind of mill could be adapted to bark-grinding.⁵ From the 1760's tanners in Cumberland leased corn,

¹ G.R.O., D421 E56. ² G.R.O., D421 E52.

³ Haviland, *op. cit.*, p. 495; C.R.O. D/Lec/Box 107; D/Lec/ATK; D/Lons/L, *passim*; D.R.O. D/Sa/E722.

⁴ This account is based on estate references as in n. 3, p. 141 and also: Haviland, *op. cit.*, pp. 495–6; Howes, *op. cit.*, pp. 82–4; C. N. Hart, *The Industrial History of Dean*, Newton Abbot, 1971, pp. 332–3, and illustrations facing p. 276.

⁵ In the early stages of industrialization—and indeed in pre-industrial economies generally where capital was scarce—fixed capital was frequently adapted from one use to another. See D. S. Landes, 'Technical Change and Industrial Development in Western Europe 1750–1914', in H. J. Habakkuk and M. M. Postan, eds., *Cambridge Economic History of Europe*, vi, pt 1, *The Industrial Revolution and After*, Cambridge, 1965, pp. 297–8; S. D. Chapman 'Fixed Capital Formation in the British Cotton Industry, 1770–1815', *Econ. Hist. Rev.*, 2nd ser., xxiii, 1970, pp. 236–7.

fulling, and hemp-beating mills for conversion to bark-grinding mills. One such lease in 1784 provided that "the other tanners in Cockermouth may have their bark ground at the said mill, they paying a fair and full proportion of the servants' wages, mill rent, repairs and all the other charges according to the quantity of bark they grind." Tanners possessing mills, in fact, seem to have been setting up as dealers by processing more bark than their own tanning businesses required.¹

After harvesting, bark was taken by cart and barge to the tanneries. As with stripping, costs were met sometimes by the growers, sometimes by purchasers, and sometimes shared between buyers and sellers. Bark taken from trees in the Weald of Kent in the early eighteenth century was carted at the landowners' expense to Maidstone or Canterbury, where it was bought by tanners from London. When John Nicholson of Cockermouth bought bark in the 1770's and 1780's on the western fringes of the Lake District, the purchase price usually included delivery to Egremont, about sixteen miles southwest of Cockermouth. Prices paid in London in the early nineteenth century generally included the costs of transport.²

Individual tanners spent large sums on bark. Accepting that in the early 1790's the annual expenditure on bark was over £300,000, and assuming that there were then between 5,000 and 6,000 tanners in England and Wales,³ tanners on average spent £50 or £60 a year on bark. John Nicholson of Cockermouth laid out roughly £300 for bark in 1778. In 1799 a firm of tanners in Northampton paid £354 in a single year for bark taken from Whittlewood forest, and another tanner £212 for bark from Salcey forest; in 1793 two partners in Gloucestershire bought bark worth £533; and between 1792 and 1796 a tanner from Maldon in Essex paid £1,860 for bark.⁴ Extended payments were common. Nicholson, for example, bought most of his bark between May and August, but payments are entered in his account book throughout the autumn and winter. To take another example, when bark was sold by auction in Lydney, Gloucestershire, in June 1785, the purchaser was required to pay cash for 10 per cent, and to offer sureties for the balance which was payable by 25 December.⁵

The purchase of bark was, clearly, not a straightforward matter and it is not surprising that middlemen moved into the business, notwithstanding a clause in the still extant statute of 1604 (1 Jac. I, c. 22) prohibiting their activities. The case for dealers was put somewhat ponderously in 1807 by a parliamentary committee considering the operation of this clause. The committee concluded that tanners needed dealers because of "the bulky nature of Bark, and the consequent difficulty of

¹ Descriptions of bark mills can be found in: Dublin Society, *The Art of Tanning and Currying Leather*, 1780, p. 24; P. C. Welch, *Tanning in the United States to 1830*, Washington, 1964, p. 2, reproducing an illustration from *A New and Complete Dictionary of the Arts and Sciences*, 4 vols., 1764; leases in C.R.O., D/Lec/Box 106, D/Lec/10/41. A bark mill dating from before 1810 still stands at Ambleside, Westmorland. Bark mills were established in Godalming, Surrey, in 1808 and 1810.—*Victoria County History, Surrey*, vol. II, 1905, p. 340.

² K.A.O., U 120 B9, E10; C.R.O., D/Ben/4150; D/Lons/L, *passim*; B.P.P. 1812-3, IV, p. 621.

³ Above, p. 144. The figure of 5,000-6,000 is a guess based on the number of tanners in 1841.

⁴ C.R.O., D/Ben/4150; P. A. J. Pettit, *The Royal Forests of Northamptonshire: A Study of their Economy, 1558-1714*, Northants. Records Society, XXXIII, 1968, p. 161; G.R.O., D 421 E55; Steer, *loc. cit.*, p. 51.

⁵ G.R.O., D 421 E55.

removing it, from its own durability, and perishable nature of the commodity for the manufacture of which it is necessary, from the general inadequacy of the supply. . . .” On the same topic a Board of Trade official, displaying a mild touch of *laissez-faire*, observed that “the apparent injustice of depriving the owner of the Bark of the assistance of a Middleman which is allowed in every other kind of Traffic, will probably induce the Legislature to deny” any attempt to enforce the old restriction.¹

That middlemen were not newcomers to the bark trade at the time of the parliamentary committee is demonstrated by the survival of papers relating to Richard Jones, a bark dealer of Bermondsey in the early eighteenth century. From this evidence an insight can be gained into several aspects of the dealers’ business and into the wider significance of small traders in the eighteenth-century economy.² The papers describe Jones both as a tanner and as a barkman but his probate inventory suggests that he was exclusively a dealer in bark. Probably the majority of bark dealers emerged from the ranks of tanners but some had other origins. An unnamed Essex dealer supplying London tanners in the 1780’s and 1790’s, was a carpenter turned timber merchant, while William Clarkson, a dealer based at Lydney, also in the 1780’s and 1790’s, was described as a gentleman.³ Richard Jones owned a two-roomed house in Bermondsey and also rented a room and stable at Guildford, spending much time away from home collecting bark throughout the well-wooded counties of Surrey, Hampshire, Berkshire, and Sussex. Bark from this region was highly prized by tanners because of its high tannin content and much of it was grown in traditional iron-making districts in the Weald as a by-product of charcoal manufacture.⁴ Such a large catchment area was necessary to satisfy the omniverous demands of London tanners for bark, and made direct dealings between tanners and woodland proprietors difficult. Jones stored bark in barns in various places until it could be packed in sacks, which belonged neither to Jones nor his customers, but to a Mr Moore. When empty, tanners were expected to return the sacks to Moore. In June 1710, Moore wrote angrily to a tanner in Southwark: “Take notice that iff you do not forthwith Bring my sacks home and pay for the use of them for the time you have had them I will give you troubell for the whole value of them for the time you have had them ever since before Alayday (sic, Lady Day?). . . .” Jones and his employee spent much labour in recovering and repairing Moore’s empty sacks, thereby conserving scarce stocks of capital.⁵ After

¹ B.P.P. 1807, II, p. 298; P.R.O. BT6/178; ‘Observations on 1 Jac. I, c. 22’ (no pagination).

² P.R.O., Chancery Master’s Exhibits, C107/160. Most of the papers are letters and accounts passing between Benjamin Wild, Jones’s executor, and Joseph Hooper who had been employed by Jones as a bark shearer. They were among those of Wild’s, deposited in Chancery in 1725 in connection with litigation concerning Wild’s own estate. The documents are unnumbered.

³ Steer, *loc. cit.*, pp. 45–52; G.R.O., D421 E56.

⁴ Howes, *op. cit.*, pp. 85–6. Direct evidence of the association between ironworks and bark supplies in the Weald is lacking for the eighteenth century, although it exists for earlier periods (see *Hist. Mss. Comm., Hatfield MSS.*, XIII, p. 24). The production of coppice wood for iron furnaces and bark for tanners went hand in hand in the mid-eighteenth century in the West Riding, Gloucestershire, and elsewhere (see *H. of C. Journals*, xxv, 1745–50, pp. 1018–19, 1042, 1048–9, 1051, 1053).

⁵ Abraham Dent, a hosier of Kirkby Stephen, Westmorland, also went to considerable pains to recover his

bagging, the bark was sent to London. Carters were hired at "a Great Price" to take bark to Guildford where it was put on to barges for London. It was not always easy to keep trace of consignments as they lumbered their way from the Sussex woodlands and, after Jones's death, his executor was convinced that the bargemen were "a parcel of Knaves because I cannot find they owne neare the quantity he gave me acct of."

Some aspects of Jones's business are hazy. His relationship with the owners of woodlands is unknown. There is a hint that Jones did not always buy bark, but sometimes acted as an agent for the growers. Nor is the scale of his business clear. There were apparently 142 full sacks of bark at his house after his death, and at least another 94 in barns in various parts of the country. One consignment of bark is mentioned twice, once as containing just over five loads, and once as consisting of 81 sacks. Assuming a standard load of 45 cwt. every sack must have contained about 336 lb. of bark.¹ At the very least, therefore, Jones possessed roughly 35 tons of bark when he died. Despite such uncertainties, Jones can be clearly seen fulfilling the vital functions of the middleman: buying bark in four counties and bulking it into large consignments required by the London market; moving bark from where it was valued least in the sylvan glades of Surrey and Sussex to where it was valued most in the stinking tanneries of Bermondsey and Southwark; economizing the capital requirements of tanners by storing bark, and attending to its transport. Tanners living in country districts without the benefit of a well-organized trade had to meet these costs themselves, and more than a hundred years after Jones's death a tanner in Somerset told a parliamentary committee that "we find it necessary to lay in a great stock of bark in the country because we cannot always command it."²

III

We can now consider more fully the value of bark to the various interests involved in its trade. Many landowners were unconcerned with bark as a commercial product. It is possible to examine account books even of well-timbered estates that never show the sale of a single shred of bark.³ So little valued was bark in crown woods in the Forest of Dean during the eighteenth century that revenue from its sale was allowed to the keepers as a perk.⁴ The navy commissioners paid

packing materials from his customers in London. See T. S. Willan, *An Eighteenth Century Shopkeeper: Abraham Dent of Kirkby Stephen*, Manchester, 1970, pp. 86-8; cf. P. T. Bauer and B. S. Yamey, 'Economic Progress and Occupational Distribution', *Economic Journal*, LXI, 1951, p. 745: "In West Africa to-day there is an extensive trade in empty containers such as kerosene, cigarette, and soup tins, flour, salt, sugar and cement bags and beer bottles . . . Usually the containers are used again the storage and movement of goods. Those who seek out, purchase, carry and distribute second-hand containers maintain the stock of capital . . . The activities of the traders represent a substitution of labour for capital."

¹ For examples of large sacks used in other trades see Zupko, *op. cit.*, pp. 149-51.

² B.P.P. 1816, vi, p. 63.

³ E.g. the four large volumes of timber accounts belonging to the Miller estates between 1821 and 1824, in the care of the Kent Archives Office (K.A.O., U791).

⁴ *H. of C. Journals*, XLIII, 1787-8, pp. 571-2, 575, 609. In 1788 money from the sale of oak bark was the most important emolument for five out of the six keepers.

an extra 7½ per cent for winter-felled oaks taken from the royal forests—there was a belief that winter felling yielded the best timber for shipbuilding—to compensate for the loss of revenue from the sale of bark which was useless when stripped out of season. Various accounts of timber and bark sales from the royal forests in the late eighteenth century suggest that bark usually sold for between 7 and 10 per cent of the value of timber and cord wood, but sometimes it fetched considerably less.¹ On the other hand bark could be a valuable product for woodland proprietors. In the early eighteenth century it was claimed that the “Chief proffits of severall Hundreds of Landowners Estates in Westmorland Consists in selling yearly some Barke and some Cordwood, and . . . if deprived of selling their Barke they will lose half the proffits of their Estates. . . .”² Bark in Sherwood Forest was worth half the value of the trees in 1791, “one with another, great numbers of them being hollow and decayed. . . .”³ and in 1807 the Board of Trade was told that “the Bark of an Oak Tree is now of more than half of the value of the Timber it has covered . . .” because of the wartime increase in prices.⁴ But it was not only in years of high prices that bark was an important woodland commodity for some landowners, as can be seen from the valuations given to bark, timber, and cordwood on the Egremont estates in west Cumberland at the time of the conversion of copyholds to leasehold tenures from 1760. For example, the timber, bark, and cordwood of 495 trees in Cockermouth Parks in 1760 were valued at £202, 36 per cent of which was the value of the bark. On ten copyholds on the manors of Braithwaite and Coledale in 1777 the bark, at £158, was worth 52 per cent of the value of all woodland products. In the same year bark of trees growing on eight tenements on the manor of Derwentfells was valued at 46 per cent of the combined value of the timber, bark, and cordwood. Eleven years later, 1,349 trees on the same manor were valued at £286, of which 51 per cent came from the bark. The manors of Braithwaite and Coledale were surveyed again in 1791, when six copyholds together with hedgerows were found to contain £661 worth of timber, bark, and cordwood, 46 per cent of which was the value of the bark.⁵

The income from bark sales sometimes went to tenants, but more often to their landlords. The surveys of the Egremont estates suggest that the ownership of timber and related products growing on copyholds was reserved to the lord of the manor; but after conversion to leaseholds the income from wood and bark sales went to tenants, and this was taken into account in setting the rent. Similarly the Earls of Lonsdale controlled the timber rights on their estates in east Cumberland and Westmorland, and a survey of other estates suggests that this was the usual practice elsewhere. However, a different arrangement occasionally operated. In 1685, for example, tenants of the Queen in Westmorland, who had customarily

¹ *Ibid.*, XLIII, 1788, pp. 619, 620; XLIV, 1788–9, p. 625; XLV, 1790, p. 178; XLVI, 1790–1, p. 123; XLVII, 1792, pp. 183, 226, 276, 1061.

² K.R.O., WD/Bro. vol. XIV (125) (no date, about 1717). ³ *H. of C. Journals*, XLVIII, 1792–3, p. 481.

⁴ P.R.O., BT6/178.

⁵ P.R.O., D/Lec/106, 120, 85. For similar valuations of trees on the manors of Eskdale, Netherwasdale, Mitredale, and Westwood see D/Lec/94, 119.

kept income from the sale of bark for themselves, became involved in litigation with their landlady who claimed the revenue for herself.¹

Part of the gross revenue from the sale of bark went into the pockets of the peelers. It is difficult to generalize about stripping costs since they varied according to the age of the trees, the quality of the bark,² and whether the bark was removed before or after felling.³ Peeling costs in woods around Chartham in Kent were roughly half of the price of the bark at Canterbury and Maidstone in the 1720's. In 1742 just over five loads of bark were stripped in Hayworth Wood near Chartham at a cost of £4 12s. Transport to Canterbury cost another £2 6s. where the bark was sold for £8 12s. 6d.⁴ At the end of the eighteenth century the cost of peeling bark from trees on the Lonsdale estates in Westmorland and Cumberland was just under half the selling price; and in 1808 a quantity of bark peeled in Cockermonth Parks for £15 17s. 6d. was sold locally for £22 10s. 6d.⁵

The importance of bark peeling as a casual employment can be seen from the felling and peeling accounts for Southern Close Wood on the outskirts of Durham.⁶ For eighteen days between 30 May and 21 June 1817, four carpenters, eight labourers, thirty-seven peelers, and two draught horses were employed at a total cost of £38 9s. 4d. That the work was a family affair is suggested by the fact that the forty-nine people possessed thirty-two surnames between them, and that among the peelers there were twenty-eight women and girls and eight boys. Adult carpenters were paid between 2s. and 2s. 8d. a day, and labourers from 1s. 8d. to 2s. 6d.; the daily rate for peelers was 6d. or 8d. for children, and 1s. for adults. Individual wages for peelers ranged from 3s. 6d. to 15s. 10d. Small though these earnings were, they provided a useful supplement to family incomes in the lean months before the high demand for agricultural labour generated by the grain harvest.

Transport costs probably varied even more than peeling costs, contributing to regional differences in the price of bark. In the early 1740's, for example, when bark was selling in Canterbury for £1 14s. 6d. a load, the price in London fifty-six miles away was three times higher, although part of the difference was caused by the greater pressure of demand in the capital.⁷ Costs of transport, however, rarely forced tanners to seek sites close to the sources of bark, in marked contrast to ironmasters whose locations were determined by the accessibility of charcoal. The most important influence on the location of tanning was the supply of hides, and these were produced close to the urban meat-consuming markets and in livestock-rearing districts. Hides normally accounted for a substantially greater part of production costs than bark,⁸ they were perishable and, furthermore, they lost up to half their weight in tanning. It was therefore normally more economic to shift bark

¹ K.R.O., WD/Bro. vol. XIV, (156).

² The bark of 500 trees in Cockermonth Parks was said to be "tedious and Bad to peel" in March 1760.—C.R.O., D/Lec/106.

³ In 1792 it was said to cost one-third more to take the bark from felled timber than from standing trees.—*H. of C. Journals*, XLVII, 1792, pp. 227-8.

⁴ K.A.O., U 120 E9, E10. ⁵ C.R.O., D/Lons/L. *passim*; D/Lec/Box 107. ⁶ D.R.O., D/Sa/E 722.

⁷ K.A.O., U 120 E9, E10; *H. of C. Journals*, XXXIII, 1770-2, p. 613. ⁸ B.P.P. 1816, VI, pp. 52, 60, 75, 127.

to the hides rather than the other way round.¹ Bark was taken by road in carts, each containing at least two tons, to some convenient point for loading on to barges; in Kent, Canterbury, and Maidstone were the main collecting centres; in Surrey, Guildford on the river Wey was the immediate destination for bark produced in Surrey, Sussex, and Hampshire. From the ports bark was taken by barge to the urban wharves, and so to the tanneries.

The importance of bark to the transport industry is best gauged by comparing the quantities and volumes of bark carried with other commodities entering inland commerce. The greatest pressures on the transport system in the eighteenth century were created by the coal trade. Coal production in Britain was probably about 3 million tons at the end of the seventeenth century, 5 million tons a year in the 1760's and 1770's, and 11 million tons in 1800; bark production was barely 1 per cent of this. But other comparisons show bark to greater advantage. For example, the volume of corn production in England and Wales exceeded 15 million quarters a year in the 1720's and '30's. By 1760 it was almost 17 million quarters; by 1790 over 20 million quarters, and by 1810 more than 24 million quarters. The corresponding volumes of bark produced in England and Wales (calculated from the tonnage figures on p. 139 above) were 3·2 to 3·5 million quarters, 4·1 million quarters, 4·7 to 5·0 million quarters, and 5·3 million quarters. The volumes of bark entering trade, that is, were between a fifth and a quarter of the volumes of grain. To be more specific, the brewing industry, itself a major industry in the predominantly agrarian economy of eighteenth-century England, used roughly 3 million quarters of barley a year, which was smaller than the volume of bark used by tanners. Turning to non-food stuffs, the weight of the English wool clip at the beginning of the eighteenth century was roughly 18,000 tons; in 1741 it was over 25,000 tons, and in 1805 nearly 42,000 tons. These quantities were less than half the weight of bark carried from the woodlands to the tanneries.² Admittedly much bark was moved over only short distances, but some, as was the case with bark taken from Kent, Sussex, or Hampshire to London, travelled fifty or seventy miles or more.

We can only conjecture on the stimulus given to improvements in transport by the carriage of bark. One of the arguments advanced in favour of improving the river Don in 1722 was that town down-stream would be supplied more cheaply with "hewn stone, lyme, wood and bark, which abound in the country lying up this River." Bark was one of the commodities moved along the improved Beverley Beck in Yorkshire in 1730-1, and it may be significant that a timber merchant was an investor in the Deal-Sandwich Turnpike Trust in 1798.³ Nor is it clear how much

¹ London as the greatest meat producing centre in the country, produced more hides than could be tanned locally, and some raw hides, therefore, were shipped elsewhere in the sixteenth, seventeenth, and eighteenth centuries. See Clarkson, *loc. cit.*, pp. 32, 36-7.

² These calculations are based on J. U. Nef, *The Rise of the British Coal Industry*, 1932, I, pp. 19-20; Deane and Cole, *op. cit.*, pp. 65, 68; P. Mathias, *The Brewing Industry in England, 1700-1800*, Cambridge, 1959, pp. 389-90.

³ T. S. Willan, *The Early History of the Don Navigation*, Manchester, 1965, pp. 6-7; *idem*, *River Navigation in England, 1600-1750*, Oxford, 1936, p. 126; W. Albert, *The Turnpike Road System in England, 1663-1840*, Cambridge, 1972, p. 107.

tanners benefited from better transport. The more efficient road and river network being created between 1660 and 1830 may have prevented the rise in bark prices from becoming severe before 1790. Probably improved transport played a part in the gradual development of regional specialization in tanning in the eighteenth and early nineteenth centuries.¹ Certainly, the roads and rivers of England enabled tanners in pre-industrial England to obtain their bulky raw materials without too much difficulty. In the last analysis, of all the groups involved in the bark trade—producers, transporters, and tanners—it was the tanners who were most dependent upon it. And it was the demands of tanners that gave employment to bargemen, carters, peelers, and carpenters, and created a market for an otherwise useless agricultural by-product.

¹ On this point see, briefly, Clarkson, *loc. cit.*, p. 39; a fuller discussion will be found in my forthcoming book.

Notes and Comments

TRANSFER OF THE ROYAL AGRICULTURAL SOCIETY'S ARCHIVE TO READING UNIVERSITY
In August 1973 the Royal Agricultural Society of England deposited its historical records with the Institute of Agricultural History and Museum of English Rural Life, Reading University. The material is to be held by the University on permanent loan.

The records consist essentially of the archive of the Old Board of Agriculture 1793–1822, and the archive of the Royal Agricultural Society from 1838–196–. The Old Board of Agriculture material is not extensive, but is important as a record of an early quasi-official attempt to discover the agricultural state of the Kingdom, and to promote new and scientific habits in husbandry.

The Royal Agricultural Society's records, on the other hand, are both detailed and fairly complete. They include, for example, minute books, reports on the proceedings of Council and Committees, lists of members and correspondence, accounts, legal papers, and social

and personal ephemera. The archive is of interest to the historian, both in documenting the past achievements of the Society and in providing additional information on the progress of agricultural research and technical innovation in the nineteenth century.

A listing of the records has been published and is available, price 50p, from the Institute of Agricultural History, The University, Whiteknights, Reading RG6 2AG,

GENERAL HISTORICAL GEOGRAPHY

Readers of the REVIEW will be interested to hear that a new journal of historical geography is to commence publication in January 1975. The journal is to be edited in English by John Patten of the Oxford School of Geography, and in America by Andrew Clark of the University of Wisconsin. Enquiries regarding subscriptions should be addressed to the Academic Press Inc. (London) Ltd, 24–28 Oval Road, London NW1 7DX.

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