

The Tax on Bricks and Tiles, 1784–1850: its Application to the Country at large and, in particular, to the County of Norfolk

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In the period immediately following the American War of Independence (1776–1783) the British Government was investigating a wide range of commodities which, if subject to tax, could without too much administration yield revenue to meet the charge on war debts. A similar exercise had been performed almost thirty years earlier when, at the outset of the Seven Years War (1756–1763), ministers of the Crown had been seeking to raise a subsidy to support the armed forces. Some objects examined and chosen for taxation on this later occasion were bizarre but the majority were ordinary and amongst the latter were bricks and tiles. As it happened, a duty on the consumption of bricks and tiles had been proposed and rejected in 1756¹. The fact that bricks and tiles were selected for taxation in the 1780s was a reflection of their manufacture and use in the late eighteenth century in numbers very much greater than in all previous periods². The difficulty which attended their transport made it practicable, for the purposes of assessment, to trap newly-produced goods in one place, and this was another consideration which favoured their taxation. The Parliamentary bill which proposed the tax on bricks and tiles passed into law in August 1784 and was, with modifications and clarifications, to remain in force until repealed in March 1850³.

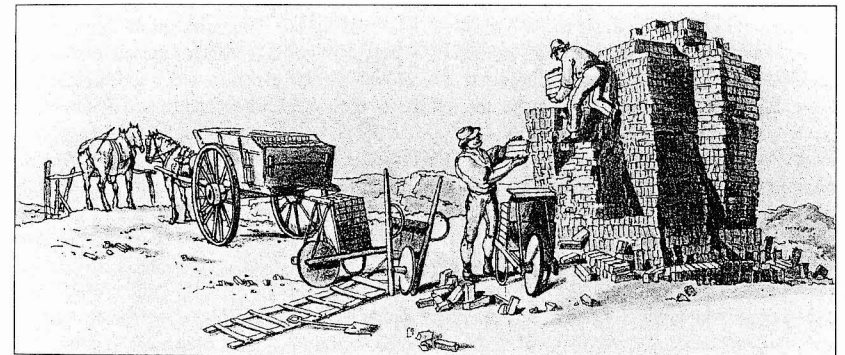


Fig. 1 Unfired bricks were stacked in regularly-sized heaps for assessment of duties by the officers of the Excise. This view from William Henry Pyne's *Microcosm of the arts, agriculture, manufactures* published between 1803 and 1806 shows, in fact, heaps of fired bricks being broken up and taken away in carts. Lying on the ground are the 'wasters', for which the Excise made an allowance of 10%, although the proportion of 'wasters' from a firing was frequently much higher (R. Lucas)

The Act governing the tax, as first instituted, set the duty at 2s 6d on a thousand bricks, 3s on a thousand plain tiles and 8s on a thousand pantiles or ridge-tiles. Duties were laid, as well, on paving tiles, varying according to their size, and other undefined fired-clay building materials. The duty on bricks was increased to 4s a thousand in 1794 and at the same time duties on plintiles and pantiles or ridge-tiles to 4s 10d and 12s 10d a thousand, respectively. In 1796 the duty on bricks was increased to 5s a thousand. The maximum dimensions of standard bricks,

prior to firing, were fixed at 10 inches long, 5 inches wide and 3 inches high in 1801 and bricks exceeding that size charged double duties. In 1803 the size restrictions were confirmed and standard-sized polished bricks accorded a special duty of 12s a thousand, extra-polished bricks twice that amount and extra-polished oversize bricks four times that amount. In 1805 the duty payable on a thousand standard bricks was raised to 5s 10d, and that on a thousand standard-sized polished bricks to 12s 10d. There were after 1805 to be no further changes in the duties levied on bricks and tiles but a number of exemptions were made. The duties levied on bricks and tiles employed in drainage were lifted in 1826. The duties on roof- and floor-tiles were lifted in 1833. The category of polished bricks was abolished in 1839. The collection of the tax was put into the hands of the Office of Excise who for the period the tax was in force operated from a set of collection points. Brickmakers were obliged to register at these collection points and the tax, when it was levied, was levied on unfired bricks and tiles, the number of which was measured by Excise officers prior to firing (Fig. 1).

There could be several discussions regarding the purposes, effectiveness and consequences of the tax on bricks and tiles, raising issues in economic, demographic and building history. The tax coincided with a period of marked industrial change, beginning with the setting up of the first steam spinning wheel in 1785 and ending with the onset of the railway age in the late 1840s. The tax was coincident, too, with unprecedented population growth, which took the number of persons in the English counties from an estimated 7,217,000 in 1784⁴ to a recorded 16,764,470 in 1851⁵. In building history, the period in which the tax was operative was that in which not only did the number of dwellings keep pace with population growth but there was also, amongst building materials, a greater proportional use of the materials which were being taxed. This article will not attempt to take the full measure of the tax on bricks and tiles. Rather, it will try to ascertain how the tax affected building construction. The essay will be made under a number of headings: (i) the number of bricks and tiles on which duty was paid, as shown by the returns made by the Office of Excise to Parliament, 1784–1850; (ii) the comments on the legislation, made both prior to its enactment and, subsequently, whilst it was in force; (iii) the steps taken by the Government to meet criticism directed at the tax; and (iv) the extent to which criticism of the tax was justified or, in other words, the real effects of the tax on bricks and tiles. The article is written from a national rather than a local viewpoint. Where appropriate, attention will be drawn to circumstances and points of view germane to Norfolk, treating the county as representative of rural areas where the manufacture of bricks and tiles was a long-standing element in the local economy and a determining factor in the pattern of local construction.

The Number of Bricks and Tiles on which Duty was Paid, 1784–1850

The documentation which records the receipts of the tax on bricks and tiles is partly manuscript and partly published. For the first half of the period in which the tax was in operation publication was made merely of the amounts received. The organs to do so were the *Journals of the House of Commons* and the *Reports from Committees of the House of Commons*. For this half-period information for the number of items taxed has to be extracted from manuscript reports sent by the officers of Excise to the Exchequer. The figures in these reports were presented as national totals. In 1829 the situation was changed, for from that date the accounts of commissioners published within Parliamentary sessional papers came to include the duties raised on bricks. From the first the figures which appeared in the sessional papers showed the number of items taxed as well as the total revenue received. The figures were presented according to the centres where they had been collected. The number of centres was 56 in 1829, but that number was reduced to 52 in 1832 and 49 in 1846. For the years 1836 to 1845 an additional analysis of the figures was made by county. Although tiles (excepting drainage tiles) were taxed throughout the period 1784 to

1833 it was only for 1832, the year before the duties were taken off, that figures for tiles were made available. When these were published in the sessional papers they were, like the figures for bricks, broken down by collection centre.

It follows from the nature of available documentation that statements made regarding the number of items on which duty was paid have to be qualified in respect of chronological, area and subject coverage. It was in the 1930s that H. A. Shannon, working with both manuscript and published material, constructed a table for the number of bricks made and taxed in England and Wales between 1785 and 1849 and since no reason has emerged to challenge Shannon's figures, they are presented here as Table 1. Shannon did not attempt to present the figures for collection centres, for counties or for tiles⁶. Table 2 presents the figures for the duty paid on bricks and tiles at collection centres in England between 1829 and 1849, distinguishing the percentage of the total collected at the two Norfolk collection centres, King's Lynn and Norwich; and Table 3 presents figures for the number of bricks charged with duties in the counties of England, 1836–1845, distinguishing the percentage of the total charged in Norfolk. Table 4 presents figures for the revenue raised from both bricks and tiles at individual collection centres in the single year, 1832. The figures presented in Tables 1–4 are assembled from a number of sessional papers, the details of which are noted in the tables themselves.

The first observation to be made on the statistics for brick production that can be extracted from the Excise returns is the same as that made by Shannon. By an abstraction of figures from annual totals for England and Wales (Table 1) Shannon showed that although the number of items taxed moved forwards and backwards there was, nevertheless, a continuous increase in production, decade by decade, between 1790 and 1849.

decennial average production of bricks (in millions), 1790–1849 (base 1790–99 = 100, with inter-decennial increases in percentages)						
	1790–99	1800–09	1810–19	1820–29	1830–39	1840–49
bricks	661	779	859	1,217	1,278	1,593
index	100	118	131	184	193	241
increase	—	18	11	40	5	25 ⁷

It was owing to the continuous increase in the production of bricks, Shannon argued, that the building of houses kept pace with population growth. Undoubtedly there was a marked increase in the production of bricks within the period 1784 to 1850 and censal figures from 1831 show an increase in the numbers of brickmakers and bricklayers extending into the second half of the nineteenth century (Table 5 and Fig. 2): it does not follow, however, that increased building was made possible by the increased use of bricks and tiles alone. The subject will be addressed in the discussion of the effects of the tax on bricks and tiles.

Whilst Shannon did not produce the actual figures for bricks and tiles made and taxed at different collection centres and within different counties he did, by means of numerical indices based on the figures, compare the performance of different collection centres, grouping them according to shared characteristics. Two of the centres, Norwich and King's Lynn, he put together⁸. Whether it is useful to classify centres in this manner is open to question. When looking at the actual figures for Norwich and King's Lynn (Table 2 and Fig. 3), it can be seen that whilst production at Norwich and King's Lynn did shadow the level in national production to a remarkable degree, following the country downwards in the years 1829–32, upwards in 1844–7 and then downwards again in 1848, there were differences between their individual performances. Norwich was doing better in the period 1829–42, when its percentage share of the

Table 1 Annual production of bricks in England and Wales, 1785-1849, in figures extracted by H. A. Shannon from documentary and printed returns of the Office of Excise and published in *Economica*, new series, 1:3 (1934), pp. 316-17

1785	463,100,000	1817	701,700,000
1786	565,600,000	1818	952,100,000
1787	651,900,000	1819	1,101,600,000
1788	629,200,000	1820	949,200,000
1789	650,700,000	1821	899,200,000
1790	730,500,000	1822	1,019,500,000
1791	778,900,000	1823	1,244,700,000
1792	858,400,000	1824	1,463,200,000
1793	848,200,000	1825	1,948,800,000
1794	673,400,000	1826	1,350,200,000
1795	596,100,000	1827	1,103,300,000
1796	575,300,000	1828	1,078,800,000
1797	517,200,000	1829	1,109,600,000
1798	469,000,000	1830	1,091,300,000
1799	482,100,000	1831	1,125,400,000
1800	608,800,000	1832	971,900,000
1801	686,600,000	1833	1,011,300,000
1802	770,300,000	1834	1,152,400,000
1803	818,800,000	1835	1,349,300,000
1804	820,600,000	1836	1,606,100,000
1805	889,400,000	1837	1,478,200,000
1806	882,200,000	1838	1,427,000,000
1807	836,400,000	1839	1,568,700,000
1808	810,400,000	1840	1,677,800,000
1809	826,800,000	1841	1,423,800,000
1810	912,500,000	1842	1,271,900,000
1811	945,100,000	1843	1,158,900,000
1812	925,800,000	1844	1,420,700,000
1813	835,100,000	1845	1,820,700,000
1814	768,300,000	1846	2,039,700,000
1815	778,000,000	1847	2,193,800,000
1816	673,000,000	1848	1,461,000,000
		1849	1,462,700,000

Table 2 Duties paid on bricks at excise collection centres in England, 1829-49, in figures extracted from *British Parliamentary Papers* 1839, XLVI, 14-15; 1846, XXV, 209-10; 1847-8, XXXIX, 267; 1849, XXX, 209; 1850, XXXIII, 233

year ended 5 January	total collected	percentage of total collected at King's Lynn	percentage of total collected at Norwich
1830	£321,574	1.35	2.23
1831	£315,720	1.44	1.97
1832	£325,935	1.31	1.62
1833	£281,818	1.59	1.76
1834	£293,465	1.57	1.56
1835	£333,886	1.40	1.47
1836	£391,119	1.12	1.10
1837	£464,606	1.02	1.05
1838	£426,788	1.08	1.18
1839	£411,139	1.05	1.25
1840	£450,800	1.07	1.17
1841	£500,174	1.06	1.13
1842	£428,471	1.17	1.31
1843	£383,099	1.19	1.41
1844	£348,827	1.93	1.51
1845	£428,268	1.79	1.29
1846	£548,721	1.47	1.07
1847	£614,125	1.68	1.35
1848	£659,871	2.03	1.66
1849	£437,430	1.85	1.85
1850	£437,347	1.48	1.96

Table 3 Number of bricks charged with duties in the counties of England, 1836-1845, in figures extracted from *British Parliamentary Papers* 1837-8, XLV, 5; 1846, XXV, 212-13

year ended 5 January	total number charged	total number charged in Norfolk	percentage of English total charged in Norfolk
1837	1,578,958,506	28,442,550	1.80
1838	1,463,172,024	32,025,225	2.19
1839	1,398,726,533	31,364,149	2.24
1840	1,537,538,933	33,448,425	2.18
1841	1,644,657,678	34,881,825	2.12
1842	1,394,557,820	33,610,150	2.41
1843	1,247,351,959	31,156,975	2.50
1844	1,136,882,931	25,334,025	2.23
1845	1,394,967,636	26,939,907	1.93
1846	1,787,715,217	30,100,401	1.68

Table 4 Number of bricks and tiles charged with duties at excise collection centres in England, 1832, in figures extracted from *British Parliamentary Papers* 1833, XXXIII, 187-90

collection centre	number of bricks charged	amount of duty	number of tiles charged	amount of duty
Barnstaple	856,100	£256	138,775	£128
Bath	3,057,025	£897	636,275	£354
Bedford	10,822,575	£3,285	1685,925	£588
Bristol	8,394,358	£2,486	1,938,725	£1,263*
Cambridge	8,143,900	£5,538	1,177,225	£470
Canterbury	15,192,425	£4,449	1,953,825	£633
Chester	19,436,925	£5,692	152,300	£121
Cornwal	437,191	£128	17,829	£12
Coventry	36,314,975	£10,856	2,378,050	£1,039
Cumberland	3,039,875	£888	6,783	£7
Derby	22,645,650	£ 6,677	935,100	£623
Dorset	5,209,650	£1,522	1,090,150	£416
Durham	14,337,425	£4,188	693,150	£455
Essex	19,978,175	£5,833	1,268,650	£548
Exeter	5,720,250	£1,670	178,650	£128
Gloucester	13,955,450	£4,074	204,525	£99
Grantham	27,203,425	£8,117	1,130,225	£732
Halifax	10,685,150	£ 3,120	1,250	£3
Hampshire	12,138,500	£3,638	2,206,050	£675
Hereford	7,062,465	£2,086	934,025	£454
Hertford	20,059,750	£5,880	1,394,925	£590
Hull	16,270,100	£4,799	2,816,400	£1,833*
Isle of Wight	16,008,225	£4,674	710,925	£242
King's Lynn	15,284,815	£4,494	1,101,750	£841*
	(1.60%)	(1.59%)	(1.52%)	(2.40%)
Lancaster	11,123,600	£3,250	3,600	£9
Leeds	13,310,725	£ 3,913	26,400	£46
Lichfield	33,802,250	£ 9,896	3,299,575	£1,688
Lincoln	24,137,175	£7,257	4,062,275	£2,635
Liverpool	54,114,825	£15,788	12,250	£16
London	39,801,525	£11,610	1,883,100	£908

Table 4 (cont.)

Manchester	64,944,650	£19,059	20,425	£33
Newcastle	11,622,525	£3,401	1,153,825	£758
Northampton	16,008,600	£4,859	1,112,125	£650
Northwich	28,436,950	£8,298	6,475	£3
Norwich	16,942,500	£4,956	1,135,675	£894*
	(1.77%)	(1.76%)	(1.57%)	(2.55%)
Oxford	6,893,825	£2,025	260,500	£89
Plymouth	767,375	£224	24,000	£17
Reading	13,086,675	£3,892	1,676,250	£567
Rochester	40,036,425	£11,683	2,496,525	£1,017
Salisbury	12,595,825	£3,721	1,464,325	£504
Sheffield	16,643,575	£4,876	344,025	£230
Shropshire	18,179,550	£5,499	4,662,750	£1,543
Stafford	29,137,150	£ 8,744	7,742,525	£3,143
Stourbridge	36,848,825	£10,849	2,923,400	£1,442
Suffolk	15,573,000	£4,568	1,536,225	£776
Surrey	26,919,000	£7,864	1,425,125	£779
Sussex	23,757,425	£6,997	3,360,675	£1,036
Uxbridge	30,685,875	£9,102	2,006,025	£761
Wellington	12,419,775	£3,623	2,251,675	£1,616
Whitby	10,204,350	£3,000	1,076,225	£698
Worcester	12,905,450	£3,767	678,925	£252
York	12,999,125	£3,851	1,108,675	£689
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TOTAL ENGLAND	956,152,889	£281,818	72,505,062	£35,057

*High amounts of duty reflect the local production of pantiles, upon which duties were laid at the rate of 12s 10d per thousand, as compared to 4s 10d per thousand for plintiles.

Table 5

BRICKMAKERS IN EASTERN ENGLAND ACCORDING TO THE DECENIAL CENSUS AC ancient county
RC registration county
Ad.C administrative county (including county boroughs)
*20 years or older

Locality	1831 AC			1861 RC			1871 RC			1911 Ad.C			1951 Ad.C		
	number of houses	ratio of brickmakers to houses	number of brickmakers	number of houses	ratio of brickmakers to houses	number of brickmakers	number of houses	ratio of brickmakers to houses	number of brickmakers	number of houses	ratio of brickmakers to houses	number of brickmakers	number of houses	ratio of brickmakers to houses	number of brickmakers
ENGLAND as a whole (excluding London and other large conurbation areas)	2,400,308	1:256.85	9,423	3,646,991	1:99.05	4,217,725	92,704	1:84.36	35,181 (696)	270,246	1:119.89 (1:152.70)	45,087	11,676,507	1:156.31	8,015
COUNTIES															
Essex	59,012	1:152.09	388	79,893	1:84.36	92,704	947	1:84.36	860 (696)	270,246	1:107.80 (1:133.80)	1,143	572,567	1:236.44	297
Cambs. (with tip of Fen, without Ely, without Lynn)	27,436	1:234.50	117	41,150	1:141.90	43,080	290	1:141.90	394 (344)	49,500	1:109.34 (1:125.24)	484	11,676,507	1:102.27	65
Lynn	63,583	1:166.45	382	89,001	1:76.73	96,256	1,160	1:76.73	1,116 (949)	135,545	1:65.35 (1:102.40)	986	11,676,507	1:137.47	144
Norfolk	77,661	1:208.77	372	99,765	1:101.49	103,080	983	1:101.49	893 (738)	125,024	1:115.17 (1:139.67)	349	11,676,507	1:358.23	30
Suffolk (East & West)	51,280	1:225.90	227	76,288	1:87.30	80,160	873	1:87.30	760 (605)	95,641	1:105.47 (1:132.50)	501	11,676,507	1:190.90	30
MAJOR TOWNS															
Boston	2,621	1:436.83	6	3,437	1:264.38	3,483	13	1:264.38	(15)	4,264	1:232.20	16	11,676,507	1:266.50	—
Bury St. Ed.	2,282	1:114.10	20	3,057	1:216.36	3,325	14	1:216.36	(12)	3,947	1:277.08	4	11,676,507	1:966.75	—
Cambridge	4,186	1:104.65	40	5,691	1:107.38	6,446	53	1:107.38	(39)	9,729	1:72.45	74	11,676,507	1:131.47	—
Colchester	3,335	1:158.81	21	4,627	1:88.90	5,205	52	1:88.90	(22)	9,218	1:236.59	17	11,676,507	1:542.24	—
E. Dereham	814	—	—	1,046	1:80.46	1,167	13	1:80.46	(13)	1,481	1:89.77	7	11,676,507	1:211.57	—
Ipswich	4,300	1:216.50	20	8,663	1:76.75	9,882	110	1:76.75	(75)	17,433	1:100.96	88	11,676,507	1:196.10	—
Lincoln	2,545	1:195.77	13	4,450	1:85.58	5,640	52	1:85.58	(46)	13,331	1:117.50	49	11,676,507	1:272.06	—
King's Lynn	2,887	1:282.45	11	4,124	1:206.20	3,950	20	1:206.20	(14)	5,111	1:282.14	4	11,676,507	1:127.75	—
Norwich	14,206	1:338.24	42	17,851	1:332.23	19,446	135	1:332.23	(64)	29,390	1:303.64	78	11,676,507	1:376.79	—
Walsbech	2,004	—	—	2,312	1:154.13	2,273	15	1:154.13	(21)	2,749	1:108.24	2	11,676,507	1:374.50	—
G. Yarmouth	4,761	1:238.50	2	8,092	1:443.56	9,561	18	1:443.56	(16)	14,102	1:597.59	2	11,676,507	1:705.00	—

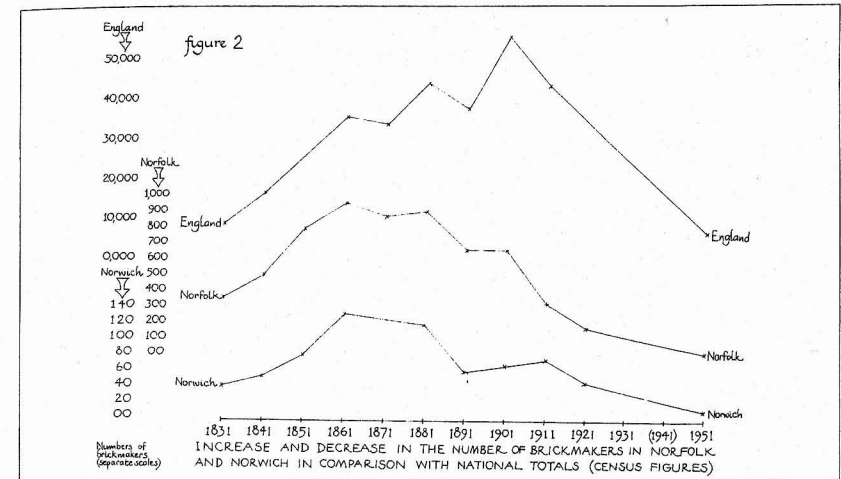


Fig. 2 Increase and decrease, as shown in census figures 1831–1851, in the number of brickmakers in Norfolk and Norwich in comparison with national totals (R. Lucas)

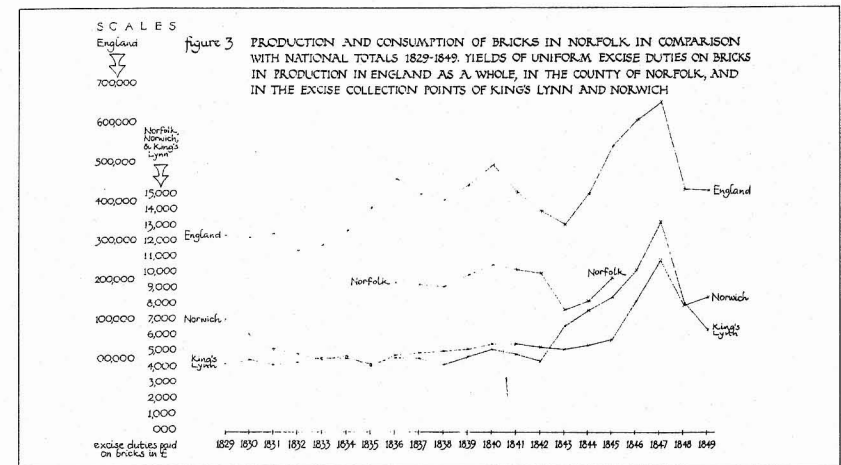


Fig. 3 Production and consumption of bricks in Norfolk in comparison with national totals, 1829–1849. Yields of uniform excise duties on bricks in the production of England as a whole, in the county of Norfolk, and in the excise collection points of King's Lynn and Norwich (R. Lucas)

annual production in England was banded between 2.23 and 1.05 and that of King's Lynn was banded between 1.59 and 1.02; but in the five years 1843–7, when Norwich's percentage share of annual production had fallen to between 1.66 and 1.07 and Lynn's share had risen to between 2.03 and 1.47, Lynn was doing better. A comparison of Table 2, presenting brick-tax duties according to collection centres, with Table 3, presenting production figures according to counties, shows that the two centres of Norwich and King's Lynn together covered somewhat more than the whole county of Norfolk. In all likelihood the Norwich collection centre covered

east Norfolk whilst the King's Lynn collection centre covered that part of Norfolk not covered by Norwich as well as tracts of Fenland which fell outside Norfolk.

Like those for the collection centres of Norwich and King's Lynn, the figures for production in the county of Norfolk also shadowed national production totals, although the statistical run is shorter (Table 3 and Fig. 3). The fact that figures for production within the county of Norfolk and at Norfolk collection centres shadowed national production totals does, at first, appear surprising, given that – as a consequence of differential population increase – the period saw proportionally less building in Norfolk than in the English counties as a whole (Table 5). As with the assessment of national production, the assessment of local production is postponed to the discussion of the effects of the tax on bricks and tiles.

Criticism of the Tax on Bricks and Tiles

From the moment the tax was proposed, it invited sharp and extended criticism. Many of the arguments advanced against the introduction of the tax endured the seventy-four years the tax was in operation and were heard again for its abolition. The criticism was general and specific. The tax was attacked on general grounds because it discouraged industry, advanced the cost of housing and damaged the poor. Typical of such views was that of Viscount Mahon, member of Parliament for Chipping Wycombe, who when speaking against the introduction of the tax questioned the principles behind it.

The objections that would lie against it were innumerable and insurmountable. It was partial and unjust. It bore most where it ought not to bear at all, and it did not bear at all where it ought to have borne most.

The specific criticism that was made of the tax can be associated, more or less closely, with groups in the population affected by the tax, namely, the landowners, the builders, the brickmakers and the farmers. The same arguments were used, at times, by more than one group and all groups referred to the interest of the poor in cases where such references might reinforce their arguments. The arguments were sound: the problem was in getting the Government to take heed. The arguments will be examined in turn.

Of all the groups affected, the landowners were the best represented in Parliament and possessed the greatest opportunity for making their voice heard. The objection of the landowners, or more accurately, the objection of some of the landowners, was that the tax was partial; that is, it took revenue from those parts of the country where bricks and tiles were used in building and exempted those areas where building was in stone and slate. As Sir Richard Hill, member of Parliament for Shropshire, put the matter in 1784:

*... the tax in question ... must fall very heavy on some particular counties, among which was that which he had the honour to represent, whilst at least half the kingdom would pay nothing towards it. To those counties, therefore, where brick and tile only were in use, it must be a grievous burthen, [and] must prove very injurious to building in general ...*¹⁰

The group of builders must be taken to include clients, architects and the growing number of architectural writers whose views were widely disseminated from the 1830s. The concern of builders was the restriction of choice placed on them as a consequence of the discriminatory duties legislated in 1801, 1803 and 1805 for a range of brickyard wares. This was when the double duties were imposed on oversize and polished bricks, quadrupled duties on extra-polished bricks and duties multiplied eight-fold on extra-polished oversize bricks. Products which builders wished to use for the strength, embellishment and dryness of their constructions, such as arch-

bricks, cornice-bricks, chimney-bricks and hollow bricks, attracted multiple duties because they exceeded officially prescribed measurements or displayed smooth surfaces. It was on these grounds that the tax was criticized by John Claudius Loudon in his *Encyclopaedia of Cottage, Farm and Villa Architecture*, of which there were editions in 1836 and 1842¹¹, and the cause was taken up with vigour by *The Builder* whose first weekly issue appeared in 1843¹². Writing to the *Architectural Magazine* in 1838 the Norwich architect and contractor William Thorold considered the most effective course of action was to make the Government feel uncomfortable:

*I wish you would stir up architects to get the duty off bricks: even the double duty taken off would be a boon in favour of the extension of taste. A meeting should be got up in London, to draw up a petition to Parliament, which would soon be followed by the rest of the kingdom. In fact, there should be a regular agitation ...*¹³

Whilst landowners and builders saw the tax as an irritant, their livelihood was in no way affected by the tax to the extent that it affected the brickmakers. For the views of brickmakers, suspected by some as having used the tax as the excuse for high prices, there were few outlets¹⁴. But in 1836 there was a Parliamentary commission of inquiry into the operation of the brick-tax which provided brickmakers with a unique opportunity for addressing the Government itself. The objections of the brickmakers were several and various and undoubtedly they had good cause to consider the operation of the tax as unfair. Like the landowners, they took exception to a tax levied on bricks and not on other walling materials and, not unnaturally, they saw themselves as disadvantaged by partial legislation. Their other objections related to the procedures whereby duties were collected. The tax was levied on moulded bricks prior to firing (Fig. 1): losses sustained through accidental damage or inclement weather whilst bricks remained in this state and before they were fired had to be borne by the brickmaker, as did the losses which were the consequence of misfiring. Brickmakers reported to the Parliamentary commissioners that 20 per cent of the bricks made and charged with duty were regularly lost. Worse than that for

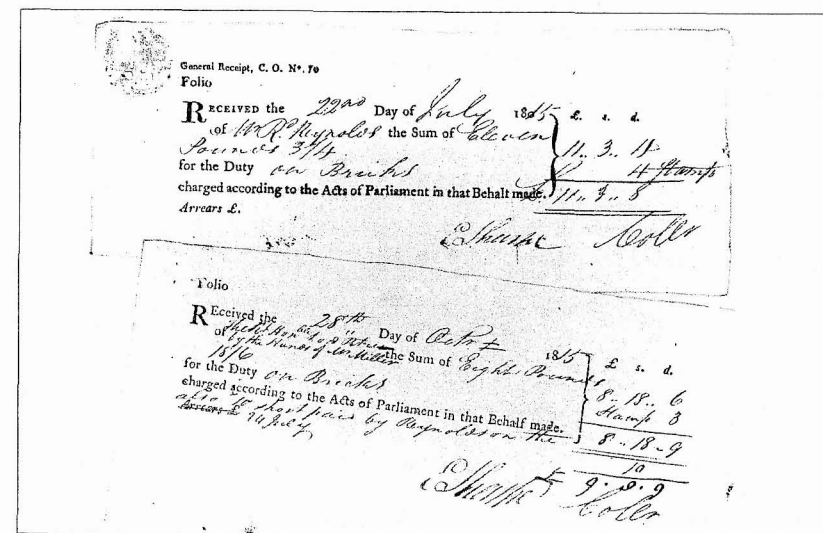


Fig. 4 Receipts from the year 1815 for the payment of duties on bricks made within and for the Norfolk estate of Lord Petre (Norfolk Record Office, NCC (Petre) box 17)

the brickmakers, however, was the fact that they had, invariably, to pay the duty before any income was received from the sale of bricks (Fig. 4). For the producers this could and did create problems and forced some, at least, to retire from the business. Brickmakers found it damaging to operational efficiency to work within the restrictions placed on their operations by the Excise-men who would not allow them, under threat of severe penalties, to set their kilns or clamps until such times as it was convenient to the officers to count and charge the bricks. From their reported statements to the Parliamentary commissioners it is clear that there was, at times, considerable friction between the brickmakers, hemmed in by regulations and assessed for insupportable duties, and the Excise-men, some of whom would seem to have shown little concern for the problems of manufacture and marketing¹⁵. Criticism of the officers of the Excise which was occasional before the Parliamentary commission became more marked in the 1840s as a wider number of persons came to appreciate the injustice done to the brickmakers.

Besides the landowners, the builders, and the brickmakers, there was still another group whose sectional interest appeared threatened by the tax on bricks and tiles. These were the farmers, who opposed the tax on two counts. In the first place, they objected to paying more for bricks and tiles employed in field drainage. Under-draining was one of the measures by which agriculturalists of the eighteenth and nineteenth centuries sought to improve grassland and crop yield and for this purpose scrubwood, straw, stones and bricks and tiles were used¹⁶. Bricks and tiles were considered to provide the most effective means of running off excess water¹⁷. It was in the second volume of the *Annals of Agriculture* that the editor, Arthur Young, emphasized the discouragement to land-drainage represented by the duties laid on bricks and tiles¹⁸. In the second place, farmers saw the tax as promoting thatch at the expense of roof-tiles, and thereby depriving their farms of the manure formed from cereal straw. Alarm at the use of cereal straw for thatch in stead of in farming operations had been raised in 1727 by Edward Laurence with the publication of his *The Duty of a Steward to his Lord*¹⁹. The alarm persisted as late as 1861, which was when the surveyor H. W. Keary addressed the subject in a report on the Duke of Norfolk's estate in south Norfolk²⁰. Arthur Young, who was already critical of the tax for its supposed ill effects on land-drainage, took exception to the measure for a second time within the pages of the *Annals of Agriculture*, concerned that an excessive proportion of the straw from 60 million acres of cultivable land would be diverted to the covering of roofs²¹.

Government Reaction to Criticism of the Tax on Bricks and Tiles

Throughout the period the tax was in operation the Government would make no acknowledgement that the tax was unjust. Always, the major Government concern was to protect sources of revenue. Although the yield from duties on bricks and tiles was small in comparison with the yields from other taxed commodities²² it was, no doubt, the reluctance of Treasury ministers to withdraw any commodity from the range of goods on which duties were paid that ensured that the tax on bricks remained in place until 1850 and the tax on tiles until 1833. Concern for the revenue was, it can be argued, the reason why at the time when the duties were first instituted, imports of bricks and tiles made abroad were charged customs duties equivalent to the excise: the intention was not so much to protect home industry as to block one path for tax avoidance. Similarly, when in 1801 the makers of large bricks were required to pay double duties on their wares the Government purpose was not to assist the makers of ordinary-sized bricks but was, as the Act itself spelt out, to close what was seen as a loop-hole in the legislation. The Government would claim that it had hard evidence that brickmakers were avoiding duty by making large bricks (Fig. 5)²³. Government indifference to moral issues, *per se*, did not mean, however, that it was not sensitive to issues which could threaten the imposition and continuance of the tax: if concessions were required to defuse opposition, it was prepared to take them aboard

and make them its own. Thus, when planning the tax, the Secretary to the Treasury George Rose discussed with a group of brickmakers what their objections would be and, as a compromise regarding their concern for manufacturing wastage and working capital, built into the legislation a standard exemption from duties of 10 per cent on all brickyard products and an allowance of six weeks for the payment of duties once they were charged²⁴. These arrangements remained in force for the whole period the tax was in operation. The concessions made to the brickmakers were sufficient to disarm any protest that may have been politically embarrassing.

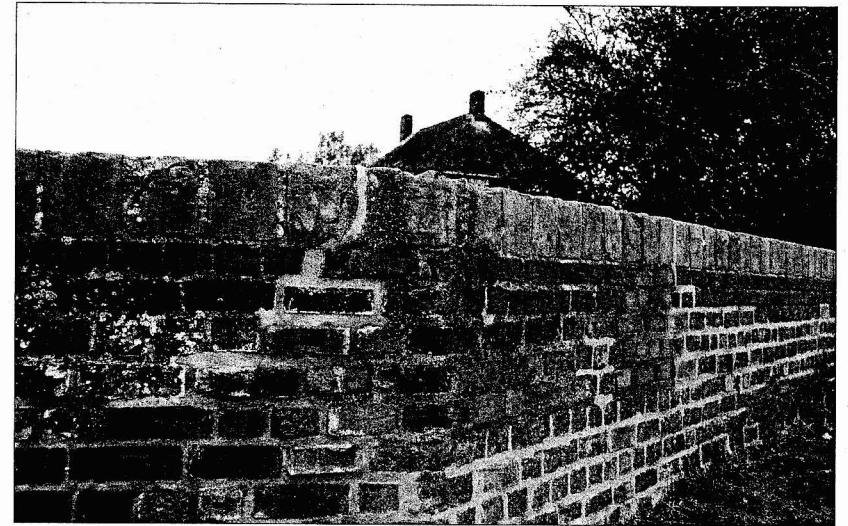


Fig. 5 Large-sized bricks, dating most probably from the early nineteenth century and measuring 9 by 4½ inches by 3 inches, used in parapet walls of the road bridge across the River Hun at Holme-next-the-Sea, Norfolk. The coping bricks are even larger (R. Lucas)

The brickmakers were the least powerful of all the major groups with which the Government had to deal, and their ability to influence Government policy was minimal. To the landowners the Government had, necessarily, to appear more responsive. When, at the point of its enactment, the Government was faced with the charge that the incidence of the tax would be partial the Prime Minister of the day, William Pitt the younger, admitted it, but declared it as his intention to even the incidence of the tax by other means²⁵. The only means there could be was the extension of duties to building stone and roofing slate but when this occurred, in 1794, a decade had elapsed and the Government was at this stage defending an increase of the duties on bricks and tiles. The duties on building stone and roofing slate were hardly fair exchange: they were not payable at the quarry, or even at the building site, but only at the dockside and caught merely the stone and slate that was shipped coastwise²⁶. The duties on shipped stone lasted until 1823, when repealed by statute²⁷, and on shipped slate until 1831, when they were also repealed²⁸. The removal of the duty on slates obliged the Government, two years later, to remove the duty on tiles²⁹. It seems likely that the Government did not intend to remove the duties on tiles other than those used in roofing but the Act for abolishing the duties did not make that clear and so duties on all tiles were lifted³⁰. Given that the duties laid on building stone were never an effective device for making even the taxation of walling materials, their removal made little difference to the legislated disadvantages under which the brick-trade was forced to operate.

The voice of the builders on the subject of the brick-tax was largely ignored, giving rise to that frustration with Government policy which was reflected in published correspondence in *The Builder* and the letter, already quoted, of William Thorold to the *Architectural Magazine*. In the legislation of 1839 the Government took the smallest of steps towards rationalizing the taxation of non-standard bricks by removing the duty on polished wares and defining a large brick not in terms of outside measurements but as one which in the unfired state exceeded 150 cubic inches³¹. Edward Dobson, an engineer and the author of an early detailed manual on brickmaking, thought the changes in legislation regarding special bricks a great improvement, but in practice little was changed³². When Excise-men later decided that hollow space was included in the cubic contents a principal intention behind the new measures, which was to remove discriminatory duties laid on ornamental and technical-function bricks, was effectively negated³³.

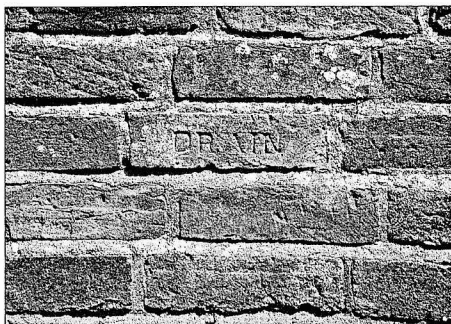


Fig. 6 By the act passed in 1826 (Geo. IV c.49) bricks marked as "drain" in the mould and reserved for drainage works were exempt from duties. Original "drain" bricks were amongst other salvaged bricks used in recent years to wall a car-park at New Romney, Kent (R. Lucas)

Although the interest of the farmers in the results of the tax on bricks and tiles was, in comparison with other groups, marginal, they would seem to have moved the Government furthest towards acceding to their demands. It is true that when the tax on roof-tiles was withdrawn in 1833 it was not because the farmers wished it but because the duties imposed on slate had been lifted. But in another regard, the farmers had their way. In 1826 Parliament made bricks and tiles used in drainage exempt of duty, but the wares so-used had to be marked "drain" in the moulding³⁴. In winning this concession the farmers were assisted by arguments for cheaper bricks raised by parish and county

authorities who were charged with the upkeep of highways. Road maintenance involved the use of large numbers of bricks in culverts and bridges which, for the purposes of the Act, were deemed as being within the definition of drainage works (Fig. 6).

At the beginning of the 1840s the tax on bricks appeared impregnable. The inquiry conducted in 1836 by the Excise Commissioners was generally critical of the tax, but since it came up with no recommendation for its repeal it was an inquiry which could be set aside. However, there was gathering in the 1840s a movement opposed to legislative measures and taxes which acted as a restraint on trade: taxes on consumption, which were acceptable earlier, were being seen in a different light. At the same time there was a growing awareness of the ill effects upon the population of crowded and unhealthy housing, epitomised by Edwin Chadwick in his *Report on the Sanitary Condition of the Labouring Population* published in 1842. The call was for the construction of improved housing for the wage-earning classes and in his report Chadwick presented, as models, cottages which had been built in Suffolk by the Earl of Stradbroke and the Reverend E. Benyon de Beauvoir, at Henham and Culford, and in Norfolk by the Earl of Leicester at Holkham³⁵. What, however, was seen to impede a general building programme was the high cost attached to building materials, and especially to bricks and tiles which were the materials used in these exemplary Norfolk and Suffolk cottages. As early as 1797 Sir Frederic Morton Eden had, in his *State of the Poor*, laid the blame fairly and squarely on the Government for taxing the necessities of the poor, which included the materials with which their dwellings were built³⁶. As the 1840s progressed there was a coalescence of the two parties, the one

concerned to liberalize manufacture and trade and the other to improve the housing of the poor. The tax on bricks was seen as especially deserving of criticism. A damning comment which appeared in a pamphlet from the Financial Reform Association was picked up in the newspaper the *Norfolk News* in December 1849:

*In every respect the brick duty was an unqualified evil. It obstructs the operations of an important branch of industry, and ends by endangering human life in habitations to which is denied the application of sound construction science*³⁷.

From the mid 1840s there came to power a series of governments who were intent not on preserving the taxes on building materials but rather in taking them off. To that end they were assisted by a Treasury surplus which conveyed some freedom of action denied to previous administrations. The first duties to be lifted were those on glass, which were set aside in 1845³⁸; the duties on bricks were lifted in 1850³⁹, followed in 1853 by the duties on imported timber⁴⁰. The duty laid on windows, which were building features, was lifted in 1851 when replacement duties were laid on inhabited houses⁴¹.

The Real Effects of the Tax on Bricks and Tiles

It would be naïve to suppose that a balanced assessment of the tax on bricks and tiles could be constructed from the criticism made of the tax. Indeed, a preliminary survey of such statistics as are available would suggest that criticism was not justified, both as to the effects of the tax in general and as to the effects of the tax in particular situations. H. A. Shannon's figures, showing continuously mounting brick production over the period the tax was in operation, would suggest that output within the counties of England and Wales was unaffected (Table 1); and the figures for collection centres and counties which Shannon did not present show that even areas such as Norfolk, where building activity was modest, recorded increased production in that part of the period for which figures are available (Tables 2-4). In those particular situations in which, it was said, the tax on bricks and tiles was damaging to construction, manufacturing enterprise and agriculture there would appear to be no case to answer. Builders had complained that the tax discouraged the manufacture of special products but it was, in fact, within the period the tax was in operation that there was developed that wide range of decorative wares which was used in buildings such as Costessey Hall (enlarged from circa 1826) in Norfolk, Harlaxton Manor (built 1831-1851) in Lincolnshire and Flixton Hall (rebuilt 1844-50) in Suffolk. There were churches, too, built of elaborately moulded brick, such as the church of Saint Botolph at Colchester, designed by William Mason of Ipswich in 1837. Hollow bricks were an innovation of the 1830s and featured in J. C. Loudon's *Encyclopaedia of Cottage, Farm and Villa Architecture* published in 1842⁴² as well as in Henry Roberts' *Dwellings of the Labouring Classes* published in 1850⁴³. The brickmakers complained that they had to pay the duties before they sold the bricks; that they paid duties on bricks that were wasted in the drying, setting and firing and could not be sold; and that the timetable of operations laid on them by the Excise-men interfered with the manufacture. Official figures presented by the Commission of Inquiry in 1836 showed, however, that of the five-and-a-half thousand brickmakers in England and Wales in 1832, only twelve were fined for evading the regulations and only one was charged with double duties for non-payment⁴⁴. With the minimum of disruption, it would seem, the brick-trade absorbed the duties imposed on its wares. Despite the fears expressed by Arthur Young that the tax on tiles would place a premium on thatch, the period over which duties on tiles were paid, 1784-1833, saw the level of thatching fall so that, taking Norfolk as an example of an area where there was both tile and thatch and no local slate, 45.52 per cent of parsonage houses were thatched in 1794 but only 13.38 per cent in 1845. Parsonages were, it has to be admitted, less typical of common dwellings in the nineteenth

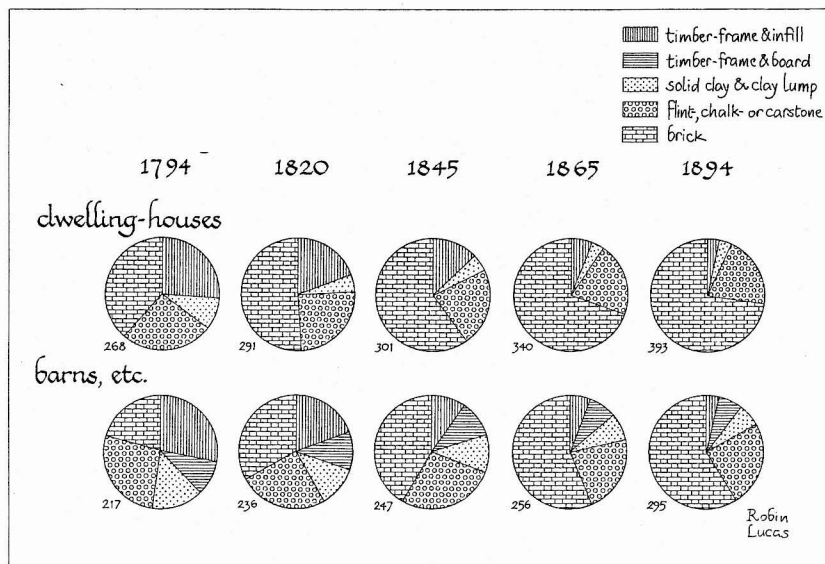


Fig. 7 Walling materials of parsonage buildings in Norfolk, 1794–1894, as described in parish glebe terriers. Proportional charts for the whole county (R. Lucas)

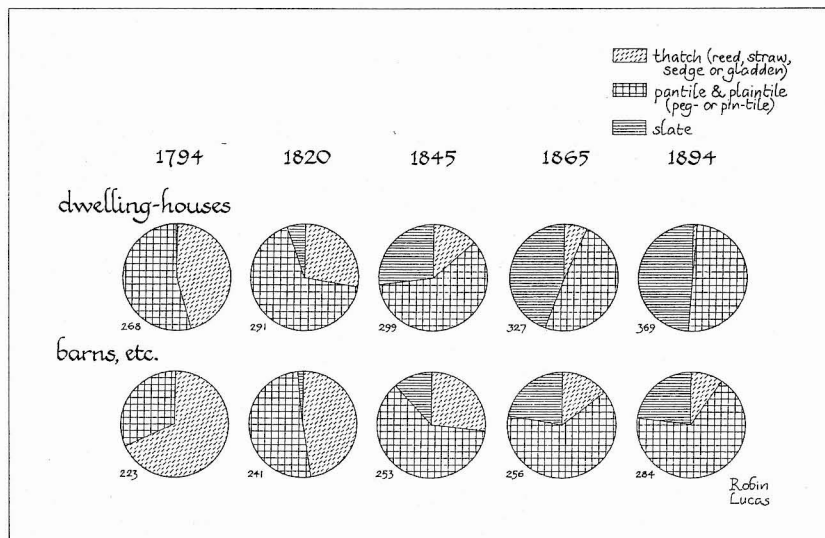


Fig. 8 Roof coverings of parsonage buildings in Norfolk, 1794–1894, as described in parish glebe terriers. Proportional charts for the whole county (R. Lucas)

century than they had been in earlier periods but if the comparison is made, instead, with Norfolk parsonage barns, a marked fall in thatched cover is similarly to be observed, from 68.16 per cent of parsonage barns in 1794 to 26.88 per cent in 1845 (Fig. 8)⁴⁵.

Can taxes be levied with no demonstrable effects? The picture presented above would seem too good to be true, and so indeed it is. A reappraisal of the sources goes far to show that whilst some comments made at the time regarding the tax were alarmist, in general the comments made were both appropriate and justified. With regard to effects attributed to the tax at a later date there is, however, good reason to be sceptical. These attributable effects also require examination.

The tax on bricks, ranging from ten to twenty per cent of the price of common bricks, was heavy. In 1836, when the tax was 5s 10d a thousand, bricks were selling at 30s a thousand⁴⁶. The heavy tax on bricks, like any such tax, can be expected to have diminished consumption. It would follow, therefore, that the table borrowed from Shannon and presented earlier, showing mounting brick production over the period 1790–1849, would, in fact, have shown greater increases had not the tax been in place. Against this it could be argued that brick production, as it was, was very much in line with the increase in the population and the increase in the number of houses and that had production been greater, it would have outstripped building and demand and have remained unsold. Such an argument presupposes that the balance between brick and stone was constant, whereas in the absence of the tax the likely development was the use of less stone and more brick. One effect of the tax on bricks was, in other words, to place a check on the increased use of brick and to prolong the use of stone in areas which might otherwise have converted to brick construction (Fig. 9). Those critics who saw the tax as favouring stone had grasped a real issue. Undoubtedly, it does seem to have been the case that once the duties on

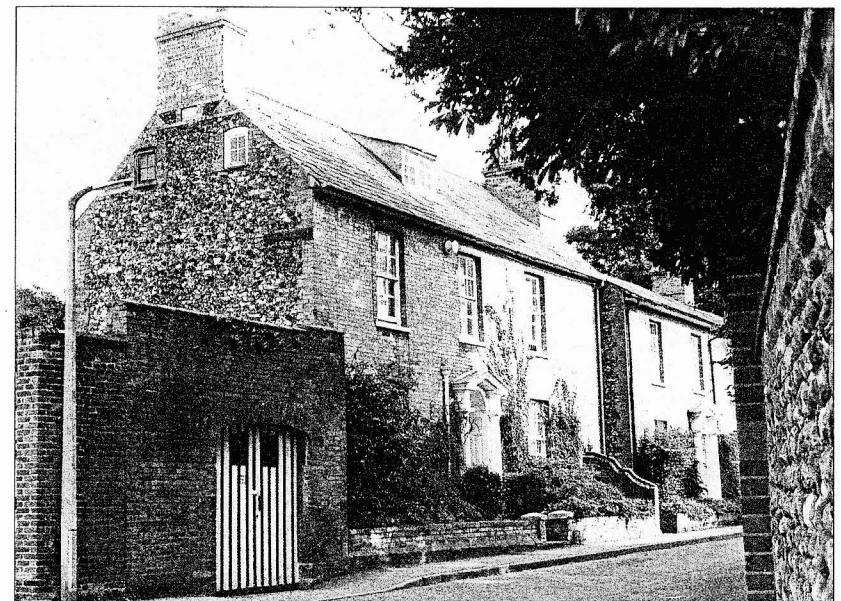


Fig. 9 The duties imposed on bricks almost certainly encouraged the continuing use of other walling materials whilst the brick-tax was in operation. These white-brick fronted houses in Old Bury Street, Thetford, Norfolk, dating from the early nineteenth century, are side-walled in flint (R. Lucas)

bricks were lifted, the production of bricks surged. For the 1850s there are, of course, no brick-tax receipts with which to prove the statement. However, writing for the *Norfolk Chronicle* published in Norwich, A. D. Bayne made this report in 1852:

*The duty [on bricks] has been lately repealed, and this considerably stimulated building operations, both in the city and county; and thence has arisen a good deal of business in building materials*⁴⁷.

The argument presented here that the brick-tax did, indeed, diminish consumption confronts not only the view of Shannon, discussed earlier, but also the view of Terence Paul Smith. From his plot of brick prices against general prices Smith has concluded that the brick-tax had no measurable effect on the price of bricks and was, therefore, of marginal importance in determining price. To Smith transport costs were a more significant element in brick pricing⁴⁸. Of the accuracy of Smith's figures there is no doubt: but a criticism of his use of evidence is that sample figures drawn from one area cannot represent another, given differences in supply, availability of alternative materials and the costs of transport. In short, Smith's arguments would seem to apply to London and similar areas where transport costs were high and where there was no effective competition to brick. In areas where, because of a more favourable ratio of the number of brickyards to houses, the costs of transport were proportionately lower, and where there was a choice of walling materials, the situation was very different. Here, indeed, discriminatory duties imposed on bricks could influence the selection of materials.

When it is appreciated that within the period the tax on bricks was operative the building of increased numbers of houses was made possible by the increased use of other materials for walling as well as brick, it becomes easier to understand how it was that Norfolk could maintain its share of brick production amongst the English counties despite building fewer houses than the average. For the fact was that the average took into account wide tracts of the country which made much use of stone and minimal use of brick. But whilst Norfolk was, in the first half of the nineteenth century, for the greater part a "brick county", it was not solely a "brick county". Norfolk was, indeed, one of those areas where the imposition of the brick-tax could influence choice. Builders within the county made use of flint and unfired clay as well as bricks for walling and their use of these materials was itself informative of county and district responses to the tax on bricks. Parsons would, it can be argued, have preferred to have walled their parsonages in brick rather than other materials but as large a proportion of Norfolk parsonages were walled in flint in 1845 as was the case in 1794, despite an active period of parsonage building (Fig. 7)⁴⁹. The outcome can, not unreasonably, be seen as a possible effect of the brick-tax (Fig. 9). The aesthetic appeal of flint-walling was dated, very largely, to the period after 1845 and after the brick-tax had been lifted. Flint-built parsonages were, in 1845, concentrated in the central and north-western districts of the county. In the same year there were standing in south-central districts of the county the equivalent of three parsonage houses and seven-and-a-half parsonage barns or similar buildings raised in clay lumps or straw-bound earthen blocks (Fig. 7). Like the majority of the clay-built farmhouses, cottages and farm buildings which were their neighbours, these parsonage buildings were almost certainly raised after 1794 and, therefore, whilst the brick-tax was in operation⁵⁰. There were whole villages - and the village of Letton near Shipdham is an example - which were raised in clay lump, for the most part in the first half of the nineteenth century⁵¹. Particulars of sale for the Letton estate, drawn up in 1913, provide details for 26 farmhouses and 83 cottages, three-quarters of which were walled in clay lump⁵². As with the use of flint in other districts of Norfolk, it would be reasonable to explain the materials of their construction as being in some measure determined by the high price of bricks and, indirectly, by the tax on bricks (Fig. 10). The argument that buildings were, in every case, raised in clay lumps because clay-lump construction was substantially cheaper than brick construction, with or

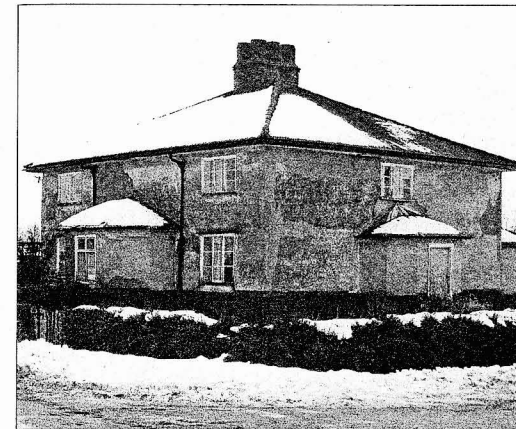


Fig. 10 This "four-dweller" block of cottages at Barnham Broom, Norfolk, was raised in the first half of the nineteenth century in clay lumps and given a render of clay (R. Lucas)

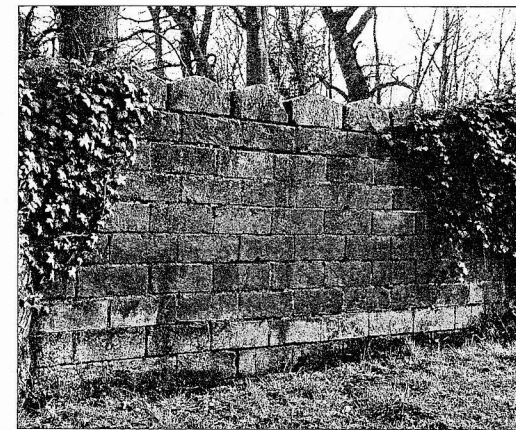


Fig. 12 The manufacture of hollow bricks, taxed as outsize bricks, was given a boost by the repeal of duties on bricks. These whoppers occur in a boundary wall at Carleton Forehoe, Norfolk, on land formerly belonging to the Kimberley Hall Estate (R. Lucas)

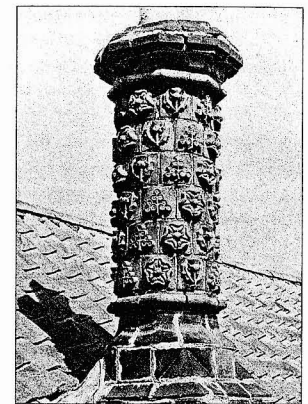


Fig. 11 Ornamental chimneys, featuring a range of special moulds, flourished in the aftermath of the lifting of the brick-tax, which included punitive duties on non-standard bricks. This stack is one of a number in the village of Costessey, near Norwich, where the local brickyard, managed by members of the Gunton family, turned out a range of decorative wares (R. Lucas)

without the brick tax⁵³, disregards the known influences of minor price changes and ignores as well the fact that once the tax was repealed, large numbers of these houses were then clad in bricks⁵⁴.

It remains to review, amongst particular issues, whether the cost disadvantages placed on special brickyard products discouraged their use. The mansions at Costessey, Flixton and Harlaxton have been mentioned as examples where decorative bricks were used before the lifting of the duties on bricks but these houses

were, in every way, exceptional. Amongst Norfolk brickmakers it is known that George Gunton, the maker of ornamental bricks at Costessey, advertised his wares generally in 1838 and 1844⁵⁵ and in 1848 illustrated advertisements for ornamental chimneys made at the Holkham estate brickyard appeared in *The Builder*⁵⁶. But there is no evidence for the widespread use of fancy bricks in the county before 1850. Thereafter it is a different story, as is evident from the several cottages on the Earl of Kimberley's estate rebuilt after this time, in houses like the residence of the Hunt brothers, brickmakers at Banham, or in churches like the Congregational Church in Princes Street, Norwich: buildings which, between them, display a wide range of intricately

moulded plinths, window and door architraves, string-courses, quoins, cornices and chimney-shafts (Fig. 11)⁵⁷. In the years before the repeal of brick duties *The Builder* was reporting the discouragement of fancy ware; in the years after, its extended use⁵⁸. Like decorative bricks hollow bricks, although known from the 1830s, were not to become widely available until the 1850s (Fig. 12). The deterrent effect of the brick-tax on the making of hollow bricks was voiced on several occasions in the 1840s⁵⁹. But in the early years of the following decade, with the brick-tax now a bad memory, brickmakers made batches to see how they would sell. George Gilbert of Banham was advertising hollow bricks in 1852⁶⁰ which, according to the *History, Gazetteer and Directory of Norfolk* (1854), were made with a machine acquired at the Great Exhibition of 1851⁶¹. The disincentive to develop machinery to produce these wares was perceived, it would seem correctly, as an effect of the tax on bricks. In the years 1850 onwards the Patent Office was deluged with patent applications and 230 patents for brickmaking machinery were registered by the time Humphrey Chamberlain described the making of bricks by machinery for *The Builder* in 1856⁶². In a revised edition of Joseph Gwilt's *Encyclopaedia of Architecture* published in 1867 mention was made of the post-tax opportunities available for the extended production of moulded and ornamental bricks and for the employment of machinery to that purpose⁶³. From the circumstances affecting the use of decorative and hollow bricks and the application of machinery to their creation it may be deduced that the brick-tax did, indeed, interfere with the choices of builders and customers and that its abolition opened the way for the manufacture of an increased range of brickyard products.

Fiscal restrictions on the manufacture of one line of special products, that is, drainage-ware, had been lifted in 1826 at a time before which, it can be argued, the drainage movement in British agriculture was not fully underway. It is, therefore, purposeless to survey the situation before the duties were lifted, and irrelevant to survey the situation afterwards, unless it were to speculate as to what the situation might have been had the duties not been lifted when they were. Between 1826 and 1850 there were marked advances in the techniques of casting and glazing ceramic tubular wares which would, under the Acts of 1801, 1803 and 1805, have borne very heavy duties as being both outsize and polished. It could not be imagined that, from the 1840s, there would have been as widespread a use of pipes in land drainage as there was if the duties on drainage ware had remained in place⁶⁴.

The burden of the tax on bricks and tiles was borne, ultimately, by the customer but through the period of manufacture, and pending the sale, the burden was borne by the brickmaker and was added to the investment risks he was required to underwrite. The low number of fines for tax evasion and the low number of double-duty late-payment penalties exacted would suggest the difficulties to have been slight. But can this negative evidence be trusted? The fines for not complying with the requirements of the Excise were exceedingly heavy and could be sustained by few brickmakers. For moving unfired bricks before they were charged the fine was, throughout the period 1784 to 1850, £50. The official statistics show merely one side of the picture. The Excise officers were not required to record how many brickmakers were forced into debt or, indeed, were obliged to abandon their livelihood as a consequence of the brick-tax. For what little evidence there is to present the other side of the picture we must have recourse to newspaper notices. In 1777 the Government had prescribed combinations of brickmakers set on advancing uniform prices⁶⁵. But from 1784, as a reaction to the tax on bricks and tiles and notwithstanding the anti-combination legislation, this is precisely what happened in various parts of the country⁶⁶. In 1794, and soon after the duty on bricks had been raised from 2s 6d a thousand to 4s, a group of nine brickmakers who supplied Norwich issued a combined statement to the effect that they were, as a consequence of the duties laid on bricks and tiles and their denial of credit, obliged to revise prices and trading conditions⁶⁷. Another combination of Norfolk brickmakers was, in 1800, to make similar announcements for similar purposes⁶⁸. One Norfolk

brickmaker fell foul of the Excise and was fined in 1788⁶⁹ but prosecutions were few. The kind of brickmakers who could be forced out of business by the duties exacted on bricks and tiles were, it can be imagined, small producers with little capital, unable to survive the spoiling of their kiln or clamp by bad weather or to survive a season of poor sales. Falling into this category was Samuel William Potter Steward, brickmaker of Mile Cross, Hellesdon, who had to endure the forced sale of his stock in 1847 so as to clear his brick-tax arrears⁷⁰. It is a mute point as to whether the payment or non-payment of brick duties precipitated the financial difficulties to which brickmakers were prone. Since the duties constituted the greatest charge in their recurrent cash outlay it would be illogical not to regard them as an important contributory factor⁷¹. Notices for brickmaker-bankruptcies appeared in the press at regular intervals during the period the tax on bricks and tiles was in place⁷². In the history of unfair taxes on manufactures the tax on unsold bricks and tiles, large in itself and levied to the disruption of working processes and before production could be complete, was singularly iniquitous. Given that it could be levied on wares that were never produced, it could be regarded as a tax on the brickmakers themselves, the more so in view of their legal requirement to register with the office of Excise.

A survey of the effects of the brick-tax would not be complete if it were to address only those effects for which there is plausible supporting evidence. But effects have been attributed to the brick-tax, almost all after the event, for which the evidence is confused and contradictory. From the understandable inclination of writers on architecture to associate tax-generated cost increases in brick with contemporary developments in the use of modified brick products and alternative materials there has resulted a number of claims which do not bear examination⁷³. Some of these claims are undermined by the fact that the supposed effects of the brick-tax were evident before the brick-tax came into being. This was, for example, the case with clapboarding on to timber frame, of stucco on to timber frame, of the use of mathematical tiles (which had the appearance of brick) on to timber frame, and with the bricklayer's use of rat-trap or hollow-wall bond which required fewer bricks than solid walls. The most that can be said in support of these claims is that the tax, itself, whilst it did not initiate such developments, may well have encouraged them. In the case of mathematical tiles the argument is further complicated by the fact that the brick-tax did include duties on mathematical tiles, classed with unspecified brick/tile products, which were actually higher than those laid on bricks. The duty payable on mathematical tiles was fixed at 3s a thousand in 1784 and 4s 10d a thousand in 1794. Walls raised in timber frame and covered with mathematical tiles could contain fewer taxable items than solid brick walls; but it would seem improbable that walls were constructed in this manner for the sole purpose of tax-avoidance⁷⁴.

This discussion has yet to address what many writers on the history of building regard as the single most identifiable effect of the brick-tax, namely, the making of large bricks so as to lessen the incidence of taxation (Fig. 5). It is commonly considered that there have been brickyard products called "tax-bricks", which are recognizable by their outsize proportions⁷⁵. The claim that the manufacture of large bricks took place so as to circumvent the tax has, unlike other attributed effects, the support of contemporary opinion. The commissioners of the Excise warned the Treasury on three occasions before the regulations were changed in 1801 that brickmakers were intent upon avoiding duties by making large bricks⁷⁶. But it would seem unlikely this was ever the case. Two reasons can be adduced to deny the connection between the making of large bricks and the incidence of the brick-tax. The discussion does, of course, mainly concern the years between 1784 and 1801 and before large bricks were accorded double duties but it does, in some measure, also include the period after 1801 when there were made some mammoth bricks several times larger than standard-sized bricks. The first reason for disputing that large bricks were a consequence of the duties levied on bricks is that there is no evidence that there existed an especially favorable market for such products during the period of the brick-tax. Where

concentrations of large bricks can be seen today, as in house-walls in the town of Horncastle in Lincolnshire, the bricks almost certainly post-date the imposition of double-duties in 1801 and, most probably, the brick-tax itself. In another area, comprising the counties of Norfolk and Suffolk, large bricks, called “lumps”, had been made and used for flooring, foundations and cornices from the earliest years of the eighteenth century⁷⁷. Only five buildings in Norfolk have so far been identified which could be dated to the years 1784 to 1801 whose walls were raised with bricks of measurements which are, as defined by the Act passed in 1801, larger than those of standard bricks⁷⁸. The second reason for disputing that large bricks were a consequence of the brick-tax is the improbability that brickmakers would ever have been able to sell such bricks unless they were offered at favorable rates. But this was not the case and the reason why it was not the case is beyond dispute. When William Marshall listed brickmakers’ wares from Norfolk in 1787 he priced standard-sized bricks at between 15s and 23s a thousand, but large bricks or lumps at 30s a thousand and outsize bricks or large lumps at 50s a thousand⁷⁹. Large bricks cost disproportionately more than standard-sized bricks because they took disproportionately longer to mould, to dry and to fire. The increased manufacturing costs of large bricks denied any prospect that the remission of duty on large bricks would have been reflected in discount pricing.

There is a considerable literature on the subject of large bricks⁸⁰. The conclusion here is that they were not products of the brick-tax. It may be sensible to regard them as early examples of brickmakers’ experimentation with new forms of brick, a movement which began before the brick-tax was instituted and which continued after it had been lifted. But if the tax did not promote the manufacture of large bricks, the differential duties introduced in 1801 between standard-sized and oversize bricks almost certainly did discourage, although it did not end, the manufacture of large bricks⁸¹.

The discussion takes another turn when it considers another material said - and said at the time - to have been encouraged by the duties laid on bricks and tiles, and this was concrete. Concrete was used in Roman and medieval times as a lime-bound aggregate but concrete as it was developed in the nineteenth century was a different product, with its particles bound together by Portland cement. Amongst evidence taken by the 1836 Commission of Inquiry was the report that concrete was being used in bridge foundations, in situations where previously use had been made of brick⁸². The evidence may have been correct, but no general inference can rightly be made from a description of such specialized use that the duty laid on brick led to its substitution by concrete. In Norfolk the use of concrete for bridges, farm buildings and dwellings long post-dated the period of the brick-tax⁸³.

General Assessment of the Tax on Bricks and Tiles

The tax on bricks and tiles was one of those taxes placed on consumption prior to the institution of a tax on income. It was the development of the brick-trade in the eighteenth century which, almost certainly, suggested the tax: and it was the buoyancy of that trade through the period of its operation which masked its effects on production levels, notwithstanding the fact that duties added significantly to the cost of fired building materials and that other materials largely escaped duties. It seems certain that had there been no tax, the brick-trade would have developed further than it did: indeed, the increase in brickmaking capacity which followed the lifting of duties reflected the quickened investment in brickyards at that time. It was in areas where there was a choice between different materials for walling and roof covering which did not require long-distance transport that the tax would most strongly have affected choices. In the county of Norfolk the increased cost of bricks and tiles did, most likely, encourage the continued practice of flint-walling and thatching and promote the use of clay lumps. It is reasonable to argue that in other areas, with other materials, other choices would have been made which would, in similar

fashion, have been influenced by fiscal discrimination against bricks and tiles.

The Government backed the tax over seven and a half decades, only occasionally changing its stance to accommodate criticism of the tax. The legislation underpinning the tax was withdrawn not because the arguments of those attacking the tax had at last prevailed; but rather because concern for public health and affordable housing and a growing intolerance to what were considered restraints on trade made the tax politically indefensible. Various groups in the population were directly affected by the brick-tax but none so much as the brickmakers for whom the tax was, from first to last, a tax on their livelihood. The brickmakers of Norfolk rode out the tax, increasing in number during the period in which the tax was in operation: but some Norfolk brickmakers were prosecuted for infringing the legislation and some, indeed, were ruined by their inability to meet the duties required of them.

During the period the tax was in operation a number of innovative brick products appeared, seemingly in response to the tax: amongst them were large bricks and brick-like tiles. There is no evidence that the arrival of these wares was in any way related to the tax on bricks. What is more likely is that, in an age of experiment, they were examples of new products. Whilst the tax did not create new products, it did discourage new products: the lifting of duties provided brickyards with the incentive to develop lines in hollow and non-standard bricks. Several of the brickyards in Norfolk, as elsewhere, were to make use of the opportunity.

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