

The AGRICULTURAL HISTORY REVIEW



VOLUME XIII 1965

PART I

*

PRINCIPAL CONTENTS

The Tithe Files of the Mid-Nineteenth Century

by E. A. COX and B. R. DITTMER

*

Some Former Hop-growing Centres

by D. C. D. POCKOCK

*

The Development of the Smallholding and
Cottage Stock-keeping Economy of the New Forest

by C. R. TUBBS

PUBLISHED BY
THE BRITISH AGRICULTURAL HISTORY SOCIETY

THE AGRICULTURAL HISTORY REVIEW

VOLUME XIII PART 1 · 1965

CONTENTS

The Tithe Files of the Mid-Nineteenth Century	<i>E. A. Cox and B. R. Dittmer</i>	page 1
Some Former Hop-growing Centres	<i>D. C. D. Pocock</i>	17
The Development of the Smallholding and Cottage Stock-keeping Economy of the New Forest	<i>C. R. Tubbs</i>	23
A Thirteenth-century Agreement on Water for Livestock in the Lindsey Marsh	<i>A. E. B. Owen</i>	40
Further Notes on Shepherds' Staves	<i>Francis W. Steer</i>	47
List of Books and Articles on Agrarian History issued since September 1963	<i>Joan Thirsk</i>	50
Reviews:		
<i>The Book of Bartholomew Bolney</i> , ed. Marie Clough	<i>R. H. Hilton</i>	61
<i>A Victoria History of the County of Oxford, Vol. VIII</i> , ed. Mary Lobel	<i>M. A. Havinden</i>	61
<i>The Australian Wool Industry</i> , by H. Munz	<i>M. L. Ryder</i>	63
<i>The Enclosures of East Halton and North Kelsey</i> , by Rex Russell; <i>The Enclosures of Bottesford and Yaddlethorpe, Messingham, and Ashby</i> , by Rex C. Russell; <i>Discovering Bickenhill</i> , by V. H. T. Skipp and R. P. Hastings	<i>Joan Thirsk</i>	64
<i>The English Landed Estate in the Nineteenth Century: its Administration</i> , by David Spring	<i>G. E. Mingay</i>	65
<i>The Oxley Parker Papers</i> , by J. Oxley Parker	<i>G. E. Fussell</i>	67
<i>The Economics of the Wartime Shortage</i> , by Mancur Olson, Jr	<i>W. H. Chaloner</i>	67
<i>La Vie de la Forêt Française au XVIIe Siècle</i> , by Michel Devèze	<i>Joan Thirsk</i>	68
<i>Deutsche Agrargeschichte, Vol. I</i> , by Wilhelm Abel; <i>Vol. II</i> , by Friedrich Lütge; <i>Vol. V</i> , by Heinz Haushofer	<i>Joan Thirsk</i>	69
Notes and Comments		22, 60
Notes on Contributors		39

The Tithe Files of the Mid-Nineteenth Century

By E. A. COX and B. R. DITTMER

AN introduction to the tithe surveys of the mid-nineteenth century, by H. C. Prince, appeared in this journal in 1959.¹ It described the contents of the tithe apportionments and maps and outlined their potential usefulness to the geographer, but it omitted any consideration of another class of tithe document, called the Tithe Files. As far as the writers can discover, these documents have not been exploited in any published work, though material derived from them has appeared in five unpublished London University theses in geography.² This paper proposes to describe the nature of the tithe files and to show, with particular reference to two areas—Essex and north-west Wiltshire—how they can be utilized.

THE CONTENTS OF THE TITHE FILES

A tithe file exists for every tithe district (the areal unit of each tithe survey, generally a parish), and all the tithe files are stored at the offices of the Tithe Redemption Commission, Finsbury Square, London.³ The contents of each file vary, but generally they contain "the reports of the Assistant Commissioner who conducted the various meetings in the district in connection with commutation, and the draft Award where one was made. Some of the files also contain correspondence and drafts relating to later proceedings under the Tithes Acts—for example, the exchange of glebe land, the sale of tithe barns, the apportionment and redemption of tithe rentcharge."⁴ They also throw light on the nature of tithes and exemptions from payment, enclosures,

¹ H. C. Prince, 'The Tithe Surveys of the Mid-Nineteenth Century', AHR VII, Part I, 1959, pp. 14–26.

² I.e. E. D. R. Burrell, *An Historical Geography of the Sandlings of Suffolk*, London Univ. M.Sc. thesis, 1961; J. W. Edwards, *Enclosure and Improvement in the Vale of Clwyd, 1750–1875*, London Univ. M.A. thesis, 1963; D. W. Gramolt, *The Coastal Marshes of Eastern Essex between the Seventeenth and Mid-Nineteenth Centuries*, London Univ. M.A. thesis, 1961; M. C. Naish, *The Agricultural Landscape of the Hampshire Chalklands, 1700–1840*, London Univ. M.A. thesis, 1960; M. Postgate, *Historical Geography of the Breckland, 1600–1850*, London Univ. M.A. thesis, 1961.

³ The tithe files are due to be removed to Ashridge House, Hertfordshire.

⁴ The Secretary (Tithe Redemption Commission), 'The Records of the Tithe Redemption Office', *Journal of the Society of Archivists*, 1, 1957, p. 136.

boundary disputes, the condition of the clergy and the attitude of their parishioners. But only that material relevant to a study of mid-nineteenth-century agriculture will be considered here. This is found primarily in the reports of the Assistant Commissioners.

In his report, the Assistant Commissioner was required to set down the details of the local commutation proceedings in chronological order. Usually, he began by naming the local newspaper in which the notice of the first parish meeting was advertised, and the date of its publication. Some Assistant Commissioners included more in their reports than others, but, in all reports, the essential information about the results of the meetings, the complaints or agreement of local landowners, the findings of the surveyors and valuers, and the conclusions of the Assistant Commissioners themselves, were recorded. Each Assistant Commissioner had to write hundreds of separate reports. Thus, in order to save time, and to give some kind of uniformity to the thousands of reports from all over England and Wales, questionnaires were printed, one for each tithe district. These questionnaires required only that information essential for the proper commutation of tithes; of necessity, much of this information concerned the agriculture of each district, and it is this which has proved to be of most value to the agricultural geographer. In the experience of the writers, there are two kinds of questionnaire, both of which are discussed here.

Questionnaires for tithe districts in north-west Wiltshire and North Wales, for example, contain 16 questions, 14 of which relate directly to agriculture. Table I is a copy of the first 14 questions, with answers as they were given for the north-west Wiltshire parish of Box in 1838.¹ Questions 15 and 16 concerned average composition and rates. Because the questionnaire was so short and almost completely concerned with agriculture, the Assistant Commissioner was obliged to prefix a written report on other matters connected with the local commutation, chiefly the business dealt with in the local parish meetings. Sometimes this included useful information not given in the questionnaire, such as the average yield of the chief crops grown in the district, or some comment on the markets for local farm products. In several north-west Wiltshire tithe files, the Assistant Commissioner reported on the accuracy of the acreage figures given in the tithe apportionment, stating whether they were by measurement, or just estimates. He sometimes commented on the difficulty encountered by the surveyors in defining the boundaries of a parish: Assistant Commissioner Charles Pym, for instance, wrote: "the boundary between the parishes of Hardenhuish, Chippenham, and Langley Burrell (Wiltshire), all contiguous, cannot be defined."²

¹ *Tithe File* (T.F.), Box.

² T.F., Hardenhuish.

The manner in which the questionnaire for Box (Table I) was completed was typical of most tithe districts in north-west Wiltshire, although the answer to Question 2 sometimes named the crops that constituted the usual rotation. The average rentable values of arable, pasture, and common (Questions 6, 13, and 14) were the basis of the assessment of tithe rentcharge, and, taken in conjunction with the information on soils (Questions 3 and 8), they provide a good index of the agricultural quality of land in each tithe district.

TABLE I
TITHE FILES: EXAMPLE OF THE PRINTED QUESTIONNAIRE

Sample parish: BOX

<i>Question</i>	<i>Answer</i>
1. How many acres of arable land (including under that description the land actually ploughed in the present or last season, whether sown with corn, planted with roots or fallow, but excluding seeds)?	1,692
2. What is the course of crops?	Four fields
3. What is the nature of the soil?	Stonebrash and Clay
4. What is the subsoil?	Stone . . . Clay [sic]
5. What description of timber grown in the hedgrows, or otherwise: Oak, Ash, Elm or Beech?	Elm, Ash, Oak and Beech
6. What is the fair average rentable value per acre of the arable land?	19s.
7. What is the number of acres of pasture, including seeds?	1,815
8. What is the nature of the soil?	Clay and Loam
9. What is the subsoil?	— do —
10. What description of timber?	Elm and Ash
11. What is the number of acres of Common?	217
12. Stock: Number of cows?	150
„ bullocks?	—
„ horses?	—
„ sheep?	2,200 ewes 1,500 lambs 800 tegs
13. What is the fair average rentable value of the pasture?	25s.
14. What is the fair average rentable value of the Common?	7s.

In a few north-west Wiltshire questionnaires, the Assistant Commissioner added the average rentable value of woodland. Question 12, on livestock, was concerned principally with cattle and sheep. Sometimes the numbers of dairy cows and grazing cows were separately stated, and sometimes the numbers of horses and oxen might be included. All the livestock numbers were estimates; some idea of the way in which they were calculated may be gained from the tithe file for Chippenham, Wiltshire, where one of the tithe valuers,

Benjamin Badcock, "got the number of cows he saw, and added 15 per cent for those not seen."¹

The north-west Wiltshire questionnaires suffer from the fact that they were completed by about six different Assistant Commissioners, with consequent variations in detail of the information that they wrote down. On the other hand, in his work on parishes within the Vale of Clwyd, North Wales, J. W. Edwards has found that the questionnaires were completed there by just two Assistant Commissioners.² One of these, Aneurin Owen, wrote in as much information on crops, livestock, etc. as the space on the questionnaire sheet allowed, and he suffixed this with a brief account of each tithe district, its location, relief, soils, climate, and agriculture. This procedure was consistent in all the questionnaires for which he was responsible.

Not all the tithe files contain a questionnaire. Usually, when it is missing, there is no alternative information in the file about agriculture. Yet, occasionally, the Assistant Commissioner made his own report on local agriculture, which, freed from the set format of the questionnaire, included much additional information of great value. When no early agreement was reached over tithe commutation, several additional meetings and inquiries were necessary for the Assistant Commissioner to make his compulsory Award. The minutes of these meetings have been preserved in the respective tithe files, and they contain much valuable information about individual farms, given, under cross-examination, by the farmers themselves and by land valuers. Information on this scale, apart from its intrinsic value, provides a useful check against that given for the parish, or tithe district, as a whole. This kind of evidence was given in great detail for farms in three parishes in north-west Wiltshire.³

In contrast to the questionnaires typical of Wiltshire and North Wales, those relating to Essex were sufficiently full to obviate the need for a supplementary report by the Assistant Commissioner, unless there was a lengthy dispute over some aspect of the agreement.⁴ As can be seen in Table II, they demanded a fuller account of the financial details of tithe commutation and asked for information on agriculture in only two questions, 11 and 22.

The answers to Question 11 were sometimes very brief, but, usually, there were detailed descriptions of the soils of the parish and the methods of husbandry employed by the farmers. The nature of this material is best illustrated by quoting a few examples. The parish of Laindon, for instance, had

¹ T.F., Chippenham.

² J. W. Edwards, *op. cit.*, Chapter 2.

³ T.Fs., Chippenham, Kington St Michael, and Oaksey.

⁴ There were, in fact, two types of Essex questionnaire, but although their format differed their contents were similar.

"a stiff, hungry clay soil, very cloddy, requiring to be ploughed five or six times . . . and in dry seasons as many as eight times."¹ In Little Wakering, there was an "excellent . . . crumbling species of clay, not sufficiently tenacious to hold water."² The marshes of Rainham were described by B. Knyaston as "too well known to make it necessary for me to say that they afford the best pasturage for all descriptions of Cattle."³ The Assistant Commissioner for Horndon-on-the-Hill noted the adoption of an unorthodox five-course rotation of fallow, wheat, seeds, wheat, and beans, and doubted whether the farmers "profited much in the end by so quick a succession of wheat crops."⁴ Comments on agricultural improvement were frequent; it was recorded for Buttsbury that liming "puts the soil into a proper state of consistency (as medicine does to the disordered stomach to receive the nourishment of food)."⁵

In calculating the amount of titheable produce, the Assistant Commissioners made estimates of the areas under each of the main crops, their average yields, and their average market price. These were all included in the answer to Question 22. The area under each crop was almost invariably calculated by subdividing the total area of arable land in a parish by the number of courses in the rotation most widely practised in that parish; by using this method, the degree of accuracy could not possibly be high. In some cases, the crudity of these estimates was reduced by dividing the arable into different soil types, making a separate estimate for each type (sometimes according to different rotations), and subdividing the courses. In a few instances, the acreages of each crop appear to have been measured.⁶

The paucity of the statistics relating to livestock in Essex seems to indicate that the agistment tithe had already been commuted to a money rent in most parishes, because, when no statistics on animals were given, there was usually a rentable value assigned to pasture, while, occasionally, the agistment tithe itself was given as a monetary value.⁷ The few files which do contain material relating to livestock generally have the numbers of the cows, sheep, horses, etc., and some indication of their value. In Finchingfield, for instance, it was estimated that there were 1,695 sheep, each producing three pounds of wool, at one shilling per pound; 282 ewes, each producing one lamb, which was expected to sell for eighteen shillings; 50 cows, each producing £7 per annum; 100 beasts (lean cattle), each producing seventy shillings per annum; and 50 sows, each producing £3 per annum.⁸

¹ T.F., Laindon.

² T.F., Little Wakering.

³ T.F., Rainham.

⁴ T.F., Horndon-on-the-Hill.

⁵ T.F., Buttsbury.

⁶ See T.Fs., Chingford, Laindon, and Rayleigh.

⁷ See T.Fs., Chingford, Orsett, and Peldon.

⁸ T.F., Finchingfield.

Report on the Agreement for the Commutation of the Tithes of the parish of North Ockendon in the county of Essex. Visited 26th day of September 1838 by Horace William Meteyard.

- ¹ The answers to the North Ockendon Tithe File are given in full (except that to Question 20).

of Essex clay. It is well farmed and it is fine wheat and bean land; on the Eastern part which is adjacent to a Marsh called Bulphan fen, the land becomes worse becoming cold hungry and moorish but with the exception of this bears fine crops.

12. *State the Value of the Tithes (if any) collected in kind for each year of the seven preceding Christmas 1835; and if more than one Tithe-owner, the sum so received by each; and give the Average?*

1829 £436 7s. 6d. Nominal composition £540 17s. 6d.

1830 £436 7s. 6d.

1831 £437 8s. 6d.

1832 £487 0s. 3d.

1833 £487 0s. 3d.

1834 £438 9s. 6d.

1835 £438 9s. 6d. Average composition £451 11s. 10½d.

13. *When the Tithes have been compounded, give the Amount of each year's composition, and the average as in number twelve.*

14. *Deduct the Average of the Abatements made during the Seven Years from the Composition agreed for, and carry out the product?*

15. *When the Tithe-owner has not paid the Rates, set forth the sum paid on account of the Tithe for each description of Rate during the Seven Years, calculating the same by what would have been paid by the Tithe-owner had the Tithes been assessed on the same principle as other Tithes in the neighbourhood; viz.*

TOTAL amount for Poor's Rate

Ditto Road Rates, including Statute Duty

Ditto Gaol or County Rates

Ditto of any other Rates or Taxes Average.

Poor Rate averages 3s. 1¾d. and Highway Rate 6½d. Total 3s. 8d. in the pound.

16. *Was the Composition so paid, an average Composition as regards neighbouring parishes similarly situated?*

The actual composition paid no doubt was as well as the nominal composition. I could not understand that the latter had ever been paid, certainly not within the Seven Years by about 17 per cent. The difference between the two being £540 17s. 6d.—£451 11s. 0d. or near £90.

17. *Personal Tithes, as Fish, Minerals etc; if any, state the amount of Receipts in each year during the Seven; and if included in the Agreement, the increase to the Rent-charge on account of them.*

None.

18. *If Easter offerings, Mortuaries or Surplice Fees are included in the Agreement, state the average Receipts for each, and the increase to the Rent-charge on account of them?*

Are not included and may amount to £1.

19. *State your opinion as to the accuracy of the Schedule, especially as to any Moduses or Exemptions set out therein; and if there are any objections to the Schedule on this or other points, state them, with the Names and Interests of the objecting Parties, and your opinion thereon?*

There are no objections to the accuracy of the Schedule and no moduses.

20. *State your opinion as to the fairness of the Agreement; if any objections are made to the amount of the Rent-charge, or to any proceeding relating thereto state them, the Names and Interests of the objecting Parties and your opinion thereon?*

I see no reason for the Rent-charge to exceed the Composition and Rates. At the Signing of the Agreement Mrs. Branfell whose assessment is £335 0s. 0d. objected to the Rent-charge, but the interest of the Signing Land-owners was sufficient of itself to satisfy the act of Parliament. . . In no instance in Essex that has come under my eye, have the Composition and Rates, or the Value of the Soil had seemingly anything to do with the formation of the Rent-charge, but the titheowner has acted upon the more direct principle of getting as much as would be given.

Rettendon has £830 on 2,410 acres of arable and 442 acres of grass. North Ockendon has £540 on 1,257 acres of arable and 270 acres of grass.

21. *Whether the Agreement should be confirmed?*

I recommend that the Rent-charge should stand at £510 0s. 0d. instead of £540 0s. 0d., adding £10 for the Glebe.

22. *A description and rough Estimate of the Amount of the Titheable Produce, and the Value of the Tithes, after deducting the Expense of Collection, with a statement of the Grounds of adopting any Rate per Cent as the Expenses of Collection; Specifying also the Rent-charge of the Several Quantities of Titheable Lands in the Schedule.*

Total quantity of Titheable land	1,570a. 3r. 35p.
Arable	1,257a. 1r. 3p.
Meadow and Pasture	270a. 2r. 32p.
Wood	13a. 0r. 0p.
Glebe	30a. 0r. 0p.
	1,570a. 3r. 35p.

Rent-charge £550

In lieu of arable and grass £540

On glebe £10

Fine heavy land 857a.

275a.	Wheat	at 3½Q. at 56s.	£2,518 12s. 0d.
	Turnips	80a. at £2 10s. 0d.	200 0 0
	Mangold-wurzel	30a. at £2 15s. 0d.	82 10 0
200a.	Peas and Beans	60a. at 4Q. at 28s.	336 0 0
	Oats	30a. at 5Q. at 22s.	165 0 0
	Wheat	80a. at 3½Q. at 56s.	784 0 0
	Peas and Beans	10a. at 4Q. at 28s.	56 0 0
	Barley	30a. at 4Q. at 28s.	168 0 0
200a.	Cabbages	5a. at £4	20 0 0
	Potatoes	15a. at £4	60 0 0
	Mown clover	30a. at 2 tons at £3 10s. 0d.	210 0 0
	Fed clover	30a. at £1 15s. 0d.	52 0 0
200a.	Long Fallow		
			£4,562 2s. 0d.

Heavy inferior 400a. 1r. 3p.

100a.	Wheat	at 2Q. at 56s.	£560
	Oats	40a. at 4Q. at 22s.	176
100a.	Peas and Beans	20a. at 3Q. at 28s.	84
	Mangold-wurzel and Turnips	40a. at £1 10s. 0d.	60

100a.	{ Peas and Beans	10a. at 3Q. at 28s.	£42
	{ Oats	20a. at 4Q. at 22s.	88
	{ Cabbages and Potatoes	10a. at £2 10s. 0d.	25
	{ Fed Clover	60a. at £1 10s. 0d.	90
100a. 1r. 3p. Long Fallow			£1,250 0 0
Pasture	100a. Hay at 2 tons at 70s.		700 0 0
	175a. Fed at £2		350 0 0
Wood	13a. at 10s.		6 10 0
Total			£6,834 2 0
Gross Tithe			683 8 2½
Expense of collection: ½			136 13 7
Net Tithe			£537 14s. 6¾d. ¹

Note: Areas in acres (and roods and perches); yields in quarters or tons; and market prices in shillings.

Roots and fed clover, as well as fed pasture and wood, are valued by the acre.

This is a more detailed estimate than is usual.

SUGGESTED TREATMENT OF THE AGRICULTURAL INFORMATION CONTAINED IN THE TITHE FILES

The tithe files of north-west Wiltshire and North Wales yield little quantitative information about arable land beyond noting the most important rotation in each parish and, in some cases, the constituent crops. Yet, for Essex, the rotations were often explicitly stated, and they were implicit in the calculations of crop areas. It must be emphasized that the tithe file crop statistics were estimates. Indeed, M. C. Naish considered the crop details in the Hampshire tithe files "generalized and inaccurate,"² and Elizabeth Burrell, commenting on those relating to the Suffolk Sandlings, agreed with this view, pointing out that the method of calculation did "not allow for any variations in field size nor for any exception to the normal rotation."³ Some idea of the magnitude of the error likely to occur can be gained from the Rayleigh (Essex) tithe file, which is unique in that it contains measured acreages as well as two estimates.

The Assistant Commissioners were themselves conscious of the intricacies in making estimates of crop acreages. Because he was "no expert" on the market-garden type of farming, which was predominant in Little Ilford, the Assistant Commissioner made his estimate according to what he considered the parish would yield under normal good farming.⁴ The valuer who visited

¹ The arithmetic of these totals is wrong, though the yields are calculated accurately.

² M. C. Naish, *op. cit.*, p. 333.

³ E. D. R. Burrell, *op. cit.*, p. 195.

⁴ T.F., Little Ilford.

TABLE III
CROP AREAS IN RAYLEIGH, ESSEX

<i>Crop</i>	<i>Measured Area (Acres)</i>	<i>Estimate by G. H. Eliot</i>	<i>Estimates by A. Offin and C. Matson</i>
Fallow	327	540	524
Barley	165	270	131
Oats	134	270	393
Beans	256	270	197
Peas	145	—	65
Clover	378	270	262
Tares	152	—	—
Wheat	705	540	524
Lucerne	10	—	—
Carraway	10	—	—
TOTAL	2,282	2,160	2,096

Ingatestone thought it impossible to make an accurate assessment, although he produced some statistics "based on the best information."¹ In the report on Saffron Walden, J. Pickering wrote: "This estimate will be one of the most conjectural I have ever made: the parish is a large one, the soil much intermixed and the mode of cultivation very various, and the extent of each crop only ascertainable by taking a detailed account."² But, lacking such a "detailed account," it is desirable to make some quantitative analysis of the statistics available; it is probable that they are no more inaccurate than the Acreage Returns of 1801, which have yielded much valuable information.³

There are three main reasons why these statistics are suited to cartographic treatment. First, for the purposes of the Assistant Commissioners, the crop estimates were merely a stage in the calculation of the total value of the titheable produce, from which the apportionment was made. For this they needed average figures rather than exact statistics for a particular year. Second, as unbiased investigators working to remove the incubus of tithe, they would have provoked less suspicion and animosity than the clergymen who made the acreage returns of 1801 and to whom farmers tended to make "an understatement of crops, as a mild form of tax evasion."⁴ Third, in the context of

¹ T.F., Ingatestone.

² T.F., Saffron Walden.

³ See, for example, H. C. K. Henderson, 'Agriculture in England and Wales in 1801', *Geographical Journal*, cxviii, 1952, pp. 338-45; and D. Thomas, 'The Acreage Returns of 1801 for the Welsh Borderland', *Trans. Institute of British Geographers*, xxvi, 1959, pp. 169-83.

⁴ H. C. K. Henderson, *op. cit.*, p. 340.

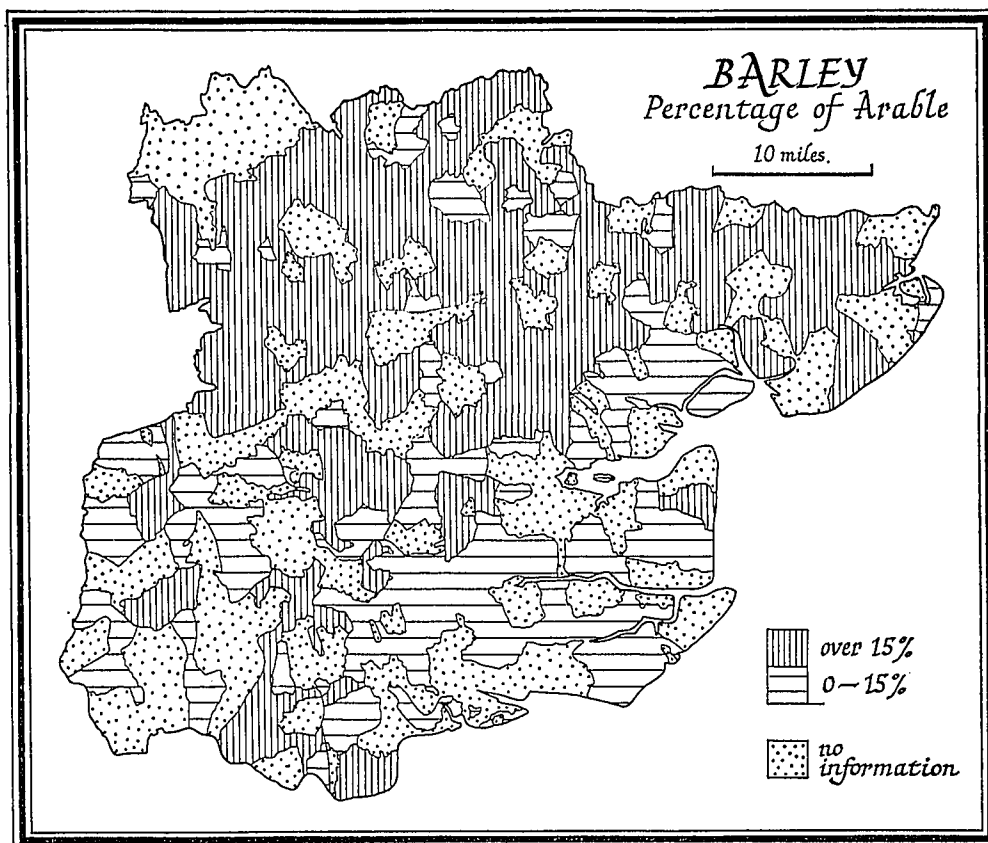


FIG. 1. BARLEY IN ESSEX.

the whole county, the disadvantages of the generalizations made for a single parish become insignificant. Although these generalizations are unsuitable for the precise depiction of detail, they can be used quite satisfactorily to give an average picture of the conditions that existed over a wide area.

The inexactitude of the statistics must be borne in mind when treating them cartographically. For instance, when coupled with the wide range of crops involved, it makes mapping by divided circles, which demands precise measurements, unsuitable. Instead, it is better to show each major crop as a percentage of total arable on separate choropleth maps, with a constant scale of values to facilitate the comparison of one map with another. This technique reduces the amount of error, for, whereas it might be wrong to state that a parish had 25 per cent of its arable under wheat, it would be more correct to say that the percentage was between 15 and 30. This method was employed in a thesis on the agricultural geography of Essex *c.* 1840.¹ In this

¹ E. A. Cox, *An Agricultural Geography of Essex c. 1840*, London Univ. M.A. thesis, 1963.

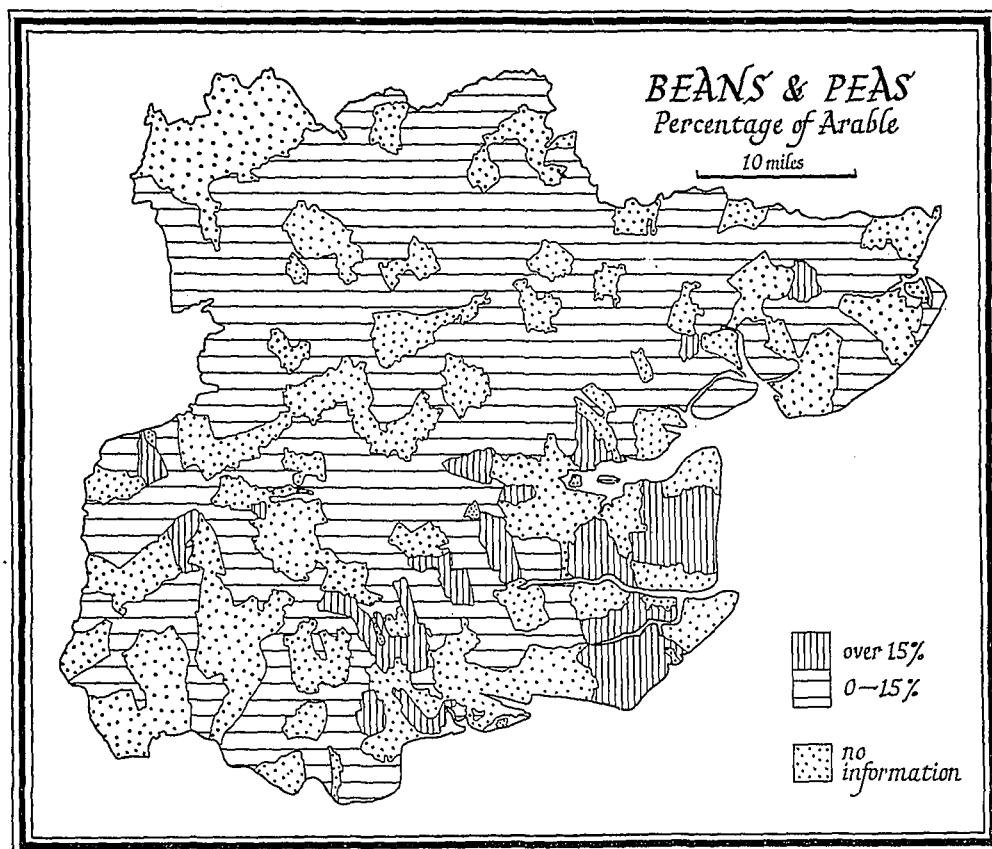


FIG. 2. BEANS AND PEAS IN ESSEX.

work, separate maps of wheat, barley, oats, green crops, beans and peas, turnips, and dead fallow were constructed, and these showed several interesting distributions (see Figs. 1 and 2). It was observed, for instance, that the contrast between the lighter soils of the north and north-east of the county and the heavy clays of the south, expressed as an arable-grass boundary on the Land Utilization Survey Map of the 1930's, was reflected in the distributions of the various crops in the mid-nineteenth century. This relationship between crops and soils would not have been discovered without the quantitative information derived from the tithe files, for it was completely masked by the crude land-use classification of the tithe apportionments and maps.

On the other hand, the remaining statistics contained in the estimates of titheable produce do not submit to satisfactory cartographic analysis. The figures for average yields are so variable within areas of similar soils and similar methods of husbandry that their value seems doubtful. It must be remembered that for the purposes of the apportionment a par rentcharge was

required,¹ and that to assess this, average crop estimates and average yields were often used. Hence, in the second report for North Ockendon (Essex), which was mostly in a "high state of cultivation," the Assistant Commissioner wrote: "In making the calculations . . . I have adopted a scale of estimated quantities per acre of each description of grain less by 25 per cent than those stated by the Tenants, as I consider the produce under ordinary farming to be the just criterion."² Like the crop estimates, the assessments of yields were subjective, but they were much less easily checked by the Assistant Commissioners, who depended to a great extent on the veracity of the farmers. H. Pilkington, for example, who made the calculations for Fordham (Essex), thought that his estimate should be treated with care, as "one Bushel of Corn/acre or one cwt. of Green Crops more or less will make a considerable difference in the total produce of a large parish."³ The mapping of the crop yields was not therefore attempted in the thesis on Essex, although the statistics were used in the text. The prices used in the calculations appear to have been constant, their almost complete uniformity over the entire county making them useless for assessing the influence of local markets.

Because of their fragmentary nature, the livestock figures in the Essex questionnaires cannot be mapped. On the questionnaire illustrated in Table I, by contrast, the livestock figures for each tithe district were consistently stated in answer to Question 12, so that it is possible to map them. In writing an agricultural geography of north-west Wiltshire, where cattle farming was the predominant form of agriculture *c.* 1840, it is particularly useful to be able to produce a distribution map of cattle for that date. It has been found that the best technique is to use the totals of cows to construct a dot map, with one dot representing ten cows, although the value of the dot will depend on the scale of the map (Fig. 3).⁴ The dots are placed according to the distribution of meadow and pasture as shown on the land-use map derived from the tithe apportionments and maps. A greater number of dots are placed on river meadows and those pastures where it would be expected that the capacity for feeding cows was higher. Such a map assumes that all the cows were feeding on the grassland, while the crops on the arable were closed to them. For north-west Wiltshire, this map shows very clearly where the principal cattle-farming areas were; it also minimizes the fact that each parish figure was an estimate by expressing it in the context of a much larger area. Unfortunately, the available information covers only half of north-west Wilt-

¹ Secretary, Tithe Redemption Commission, *op. cit.*, p. 133.

² T.F., North Ockendon.

³ T.F., Fordham.

⁴ B. R. Dittmer, *An Agricultural Geography of North-west Wiltshire, 1770-1850*, London Univ. M.A. thesis, 1963.

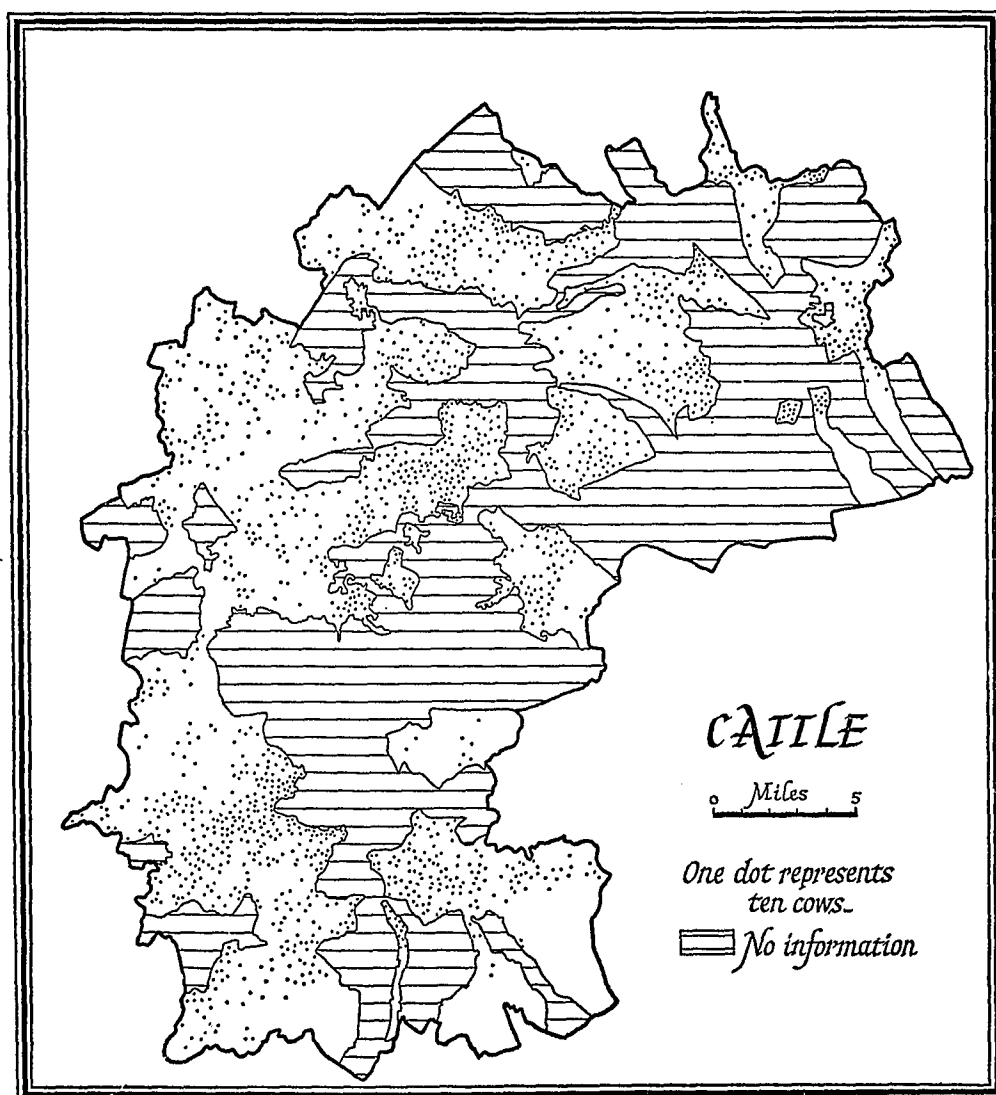


FIG. 3. CATTLE IN WILTSHIRE.

shire—a severe and consistent failing of all tithe-file information. A similar map could be drawn from the sheep estimates.

The livestock estimates may be used in another way. By dividing the total number of cows given in the tithe file of a particular parish into the number of acres of meadow and pasture given in the corresponding apportionment, the number of acres of grassland supporting each beast may be calculated on a parish basis. Most cattle farmers were accustomed to assess the quality of their land in these terms, and, hence, the map based on these figures is very instructive. By expressing them as a ratio, the inexact nature of the livestock

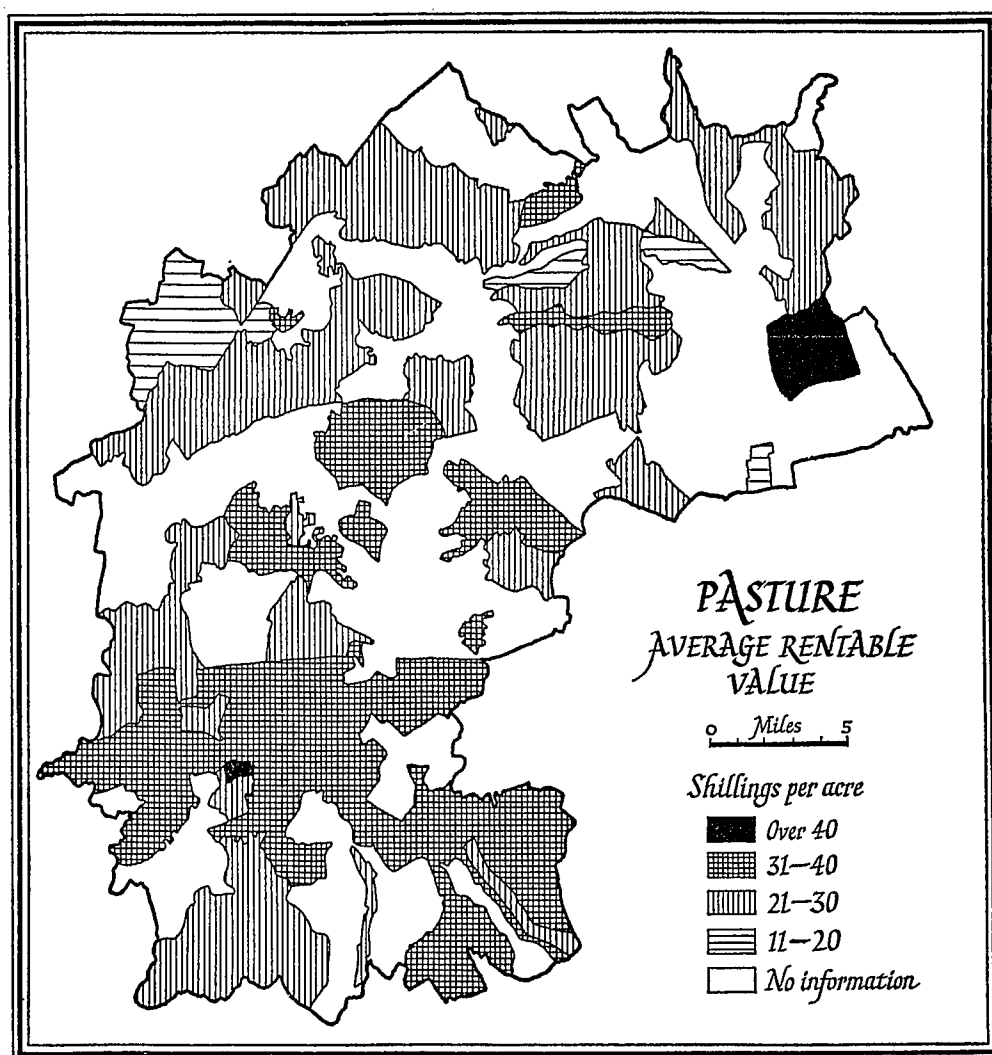


FIG. 4. RENTS OF PASTURE IN WILTSHIRE.

estimates is, again, discounted. Similarly, the density of sheep (per 100 acres) could be mapped.

Most farmland was valued at some time or another as a basis for assessing rents, land-tax, poor-rates, etc. The average annual rentable value of an area of land is probably the best possible quantitative statement of its quality, and one which may be analysed for the purpose of comparing one region with another. The answers to Questions 6 and 13 (Table I) make it possible to draw maps to show the variations in the average rentable value of arable and pasture respectively (Fig. 4). These maps form an excellent summary for the agricultural geography of any area, as the rentable values mapped would be

affected by factors such as relief, soils, land drainage, manuring, and general farm management that would be discussed in such a study. In north-west Wiltshire, for example, maps of the average rentable value of arable and pasture illustrate how the superior quality of the land and the farming in the clay vales compared with that on the poor rendzina soils of the Cotswold fringe in the extreme north-west of the county.

The tithe files contain only a fraction of the material originally stored in them. It is not known what documents have been "weeded" from them, but they may have included much additional information on contemporary agriculture, perhaps in the form of letters from local landowners and tithe owners to the Tithe Commissioners in London.¹ These private letters connected with tithe commutation may sometimes be found in local county record offices. In fact, some of these record offices keep miscellaneous documents concerning the tithe surveys which form an important source of information supplementary to the tithe files. At the Essex Record Office, for instance, there are records of crop estimates made by tithe valuers for six different parishes.²

This paper has restricted discussion of the tithe files to their use as a source for an agricultural geography of England and Wales *c.* 1840. This is not to suggest that these documents contain nothing of interest or value to the economic historian. Indeed, some of the files have details of local agricultural prices, tithe payments, rates and taxes, land ownership, restrictive leases, and the quantity and value of glebe land, which are essential to an understanding of local economic history.

One tithe file alone is only of local interest; but the complete collection of about 11,800 files constitutes a historical source of major significance. So far they have been thoroughly examined for only a few areas, representing a total of about three million acres. Fully 90 per cent of the files await serious study. Any work on mid-nineteenth-century agriculture in England and Wales must make thorough use of the tithe maps and apportionments; any work that uses the tithe maps and apportionments would be incomplete without reference to the tithe files and the unofficial, supplementary, tithe documents in the county record offices.

¹ Secretary, Tithe Redemption Commission, *op. cit.*, p. 136.

² Essex Record Office: D:DOP B.39, 29; D:DOP B.39, 34, 1; D:DHw F.36; D:DOP B.39, 44, 1-2; D:DOP 70, 2; D:DOP 13, 2.

Some Former Hop-growing Centres

By D. C. D. POCKOCK

EVER since hops were first introduced from Flanders at the beginning of the sixteenth century English hop-growing has been largely confined to the four south-eastern counties of Kent, Sussex, Surrey, and Hampshire and to Herefordshire and Worcestershire in the West Midlands (Table I). Today under forty of some 20,000 acres are located outside the two main centres; even in the past under conditions of greater regional self-sufficiency only three other counties—Essex, Suffolk, and Nottinghamshire—achieved areas of hop-growing substantially in excess of one hundred acres. In these three counties, however, hop-growing held a degree of regional importance until its decline towards the middle of the last century, so that a comparative study may be made of some features of location, conditions of growth, and reasons for decline of the three former centres.¹

TABLE I
HOP ACREAGES BY GROUPINGS FOR SELECTED YEARS

Year	South-eastern England	West Midlands	Notts., Essex, Suffolk	Remaining Counties
1724	11,854	8,543	2,120	887
1835	37,963	14,525	1,246	190
1878	63,079	8,511	149	50

Sources: For 1724: *Treasury Papers*, 1729, vol. cclxxi (T, I, 271).
For 1835: *Parliamentary Papers*, 1839, vol. lxvi, pp. 519-69.
For 1878: Ministry of Agriculture, Fisheries and Food.

The extent of the former producing areas may be gauged from the distribution of parishes with records of hop plantations between approximately 1790 and 1830 (Fig. 1). In Nottinghamshire the hop-growing area stretched from Retford to Southwell, and was known as the 'North Clays' district on account of its position north of the Trent and of the heavy nature of the loams developed from the Keuper Marls. Some thirty-five parishes contained hop yards. A similar number of parishes comprised the hop-growing area of Essex, concentrated in a compact zone between Sudbury and Braintree, pre-

¹ Regional studies by the author of hop-growing in South-eastern England and the West Midlands can be found in *Annual Report*, Department of Hop Research, Wye College, 1957 and 1958 respectively.

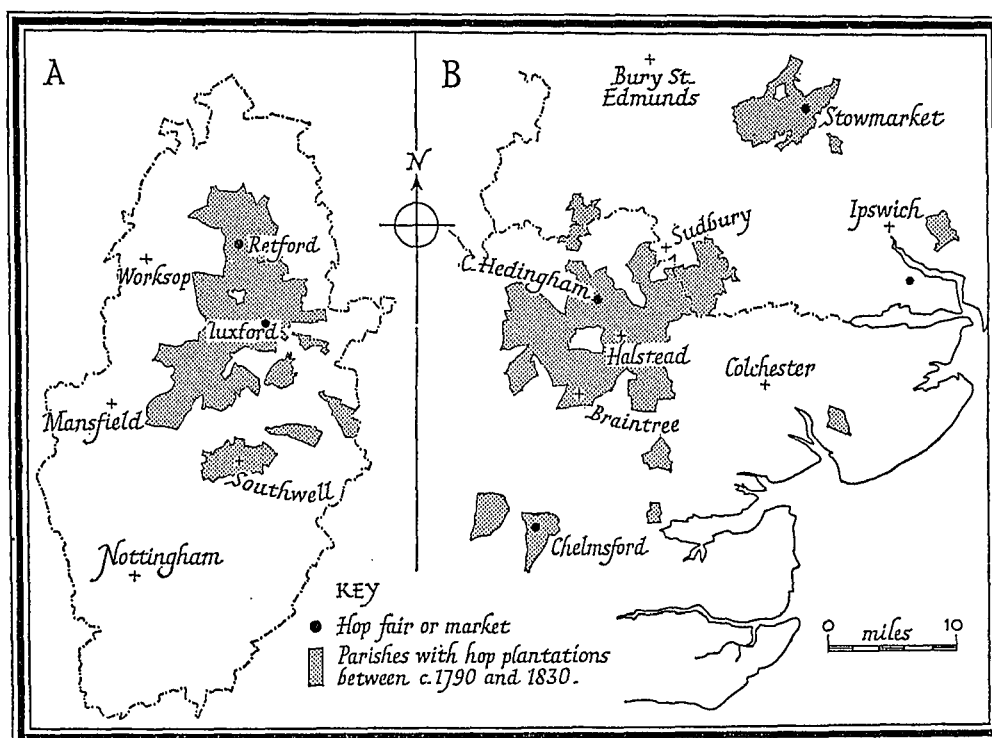


FIG. 1

dominantly on chalky loams. Isolated parishes to the south and east were mainly in the lower sections of river valleys. The main area of Suffolk hop-growing was in the vicinity of Stowmarket, with a second area adjoining the Essex-Suffolk border. In both of the East Anglian counties the hop fields were termed 'gardens' following the Kentish usage. Although the existence of 'wild' hops or field names suggests a wider distribution, in all three counties excise returns and local records indicate that the areas shown in Fig. 1 were always the main producing areas.¹

Hops were probably introduced into Essex and Suffolk soon after their arrival in Kent in the early sixteenth century. Proximity to London and Flanders, suitable soils, and a tradition of enclosed agriculture provided a favourable combination of factors surpassed only by those of Kent to the south of the Thames. The earliest record of hop-growing is 1590,² while one of the two classic works of the sixteenth century on hop cultivation (Tusser's *Five Hundreth Points*) was written by a Suffolk farmer. Tradition

¹ E.g. W. C. Waller, 'Essex field names', *Trans. Essex Archaeological Soc.*, v-ix, 1895-1903.

² Essex Record Office, D, ABW 2, 293. Lance tells of Kentish farmers establishing hops in Essex—E. J. Lance, *The Hop Farmer*, 1838, p. 41.

has it that hops were taken from this area and introduced to Surrey and Hampshire.¹

Hop-growing later reached Nottinghamshire. Although the exact date is unknown, it is probable that the crop was being cultivated by the middle of the seventeenth century.² The first excise returns show Defoe to be in error in 1722 when he wrote that no hop grounds existed north of the Trent.³ Distance from the counties where the plant was first introduced, an open-field system of agriculture, and a strong preference for unhopped ales discouraged early cultivation. Two points, however, may have influenced its introduction and subsequent extension. In the seventeenth century the county grew large quantities of barley and had malt and ale-brewing industries of extra-regional importance.⁴ The existence of this industry plus the distance to the nearest hop fair (Stourbridge, Cambridgeshire) may have encouraged an attempt to provide local sources of the raw material. Secondly, the area to the west of Retford and Tuxford, still known as 'The Dukeries', contained the homes of several titled persons. Their connections with the south of England may have induced initial experiments when the new plant was grown on a small, even domestic, scale; later precept and example may have sustained growth of the expensive and delicate plant while experiments in many other parts of the country proved unsuccessful.⁵

Hop-growing in both Nottinghamshire and Essex attained a maximum area of approximately one thousand acres, Suffolk less than half this, throughout the eighteenth century (Table II).

TABLE II
HOP ACREAGES FOR SELECTED YEARS

	<i>Nottinghamshire</i>	<i>Essex</i>	<i>Suffolk</i>
1724	943	890	314
1835	720	374	152
1866	76	137	127
1878	37	37	75

Sources: As for Table I. 1866 returns from the Ministry of Agriculture, Fisheries and Food.

¹ J. Aubrey, *Natural History and Antiquities of the County of Surrey*, 1673, 1718-19, III, pp. 346-7. ² P.R.O., *Treasury Papers*, 1729, CCLXXI (T, I, 271).

³ D. Defoe, *A Tour through England and Wales* (Everyman ed., 1928), I, p. 83.

⁴ *Ibid.*, II, p. 146.

⁵ The homes of titled persons were at Clumber, Rufford, Thoresby, and Welbeck. In the nineteenth century the plantations of the Earl of Scarborough (Rufford) were continually mentioned as an example worthy of other growers' attention.

The average yields for Essex and Suffolk for the period shown in Fig. 1 of between 4 and 8 cwt per acre were comparable with the yields of Kent and Sussex. Moreover, the type of hop, although not rivalling the choice Farnham product, was considered at least equal in flavour to the Kentish varieties.¹ The North Clays on the other hand supported a coarse variety of hop and yielded only 3–6 cwt per acre; it equalled or exceeded the national figure only in exceptional years.

In all three counties there is evidence that hop-growing extended to soils which today would be considered unsuitable for the hop plant. Young referred to moor and boggy ground in both Essex and Suffolk,² but the feature was most widespread in Nottinghamshire where Lowe recorded that plantations lay "in vallies and wet lands for the most part, not very valuable for other purposes."³ Although the North Clays' variety did not call for the optimum conditions of soil and drainage which are sought today, there is definite evidence that in years of heavy rainfall the use of many damp sites lowered substantially the district's total output.⁴

Employment given by the industry during both growth and harvest, and also in ancillary occupations such as copse maintenance and sack manufacture, was of local importance to the labouring classes in the three areas. A wider significance was achieved by the rise of hop fairs, which attracted merchants from various parts of England. Retford, as the most northerly hop fair in the country, was of special importance until the breaking down of traditional economic watersheds and marketing limits with the advent of rail transport. The benefit of hop cultivation to the agriculture of the three areas generally is questionable, for often other farm activities were neglected in an effort to produce a large hop harvest. Frequently, however, high yields coincided with low prices, although hop cultivation continued to be popularly associated with wealth. At one point in the eighteenth century it is recorded that landlords in Nottinghamshire ordered their tenants to reduce their hop acreage, "fancying that hop grounds were enriching the growers . . . without benefiting themselves in any way."⁵ Hop-growing was not so lucrative as is generally supposed, for production costs were six to seven times that for a comparable area of grain, and a heavy excise duty had to be paid, quite apart from the risk involved in growing a delicate plant that was peculiarly vulnerable to pests and diseases right up to the time of harvest. The wide fluctua-

¹ Rev. A. Young, *Agriculture of the County of Essex*, 1807, p. 39; E. J. Lance, *op. cit.*, p. 128.

² Rev. A. Young, *Agriculture of the County of Suffolk*, 1797, p. 88.

³ R. Lowe, *A General View of the Agriculture of Nottingham*, 1798, p. 39.

⁴ *Nottingham Journal*, 6 October 1848.

⁵ *Ibid.*, 6 October 1865.

tions of hop duty—a direct reflection of yield—in Table III illustrate the uncertainty involved in hop-growing.¹ Thus the record of an Essex farmer in 1821 who appealed to his landlord for relief of obligation to grow hops, his seven acres having caused him to lose £100 for the preceding two years, may be taken as at least as representative of the conditions in the hop industry as the few, often repeated, stories of quickly amassed fortunes.²

TABLE III
HOP DUTIES, 1822-6

	<i>Nottinghamshire</i>	<i>Essex-Suffolk</i>
1822	£3,162	£3,108
1823	7	71
1824	1,331	1,498
1825	1,341	78
1826	3,570	3,868

The duty was 1½d. per pound.

Source: E. J. Lance, *The Hop Farmer*, appendix.

The hop-growing area of Essex and Suffolk declined during the eighteenth century with increasing competition from the very much larger, more scientific, and often more highly capitalized hop cultivation in Kent, associated with which was the increasing concentration of marketing at Southwark, to the *south* of the Thames. East Anglian farmers were thus less well equipped to withstand vagaries of production. The more isolated position of the Nottingham district allowed the persistence of a high acreage for a longer period but caused the eventual decline to be more precipitous. A nineteenth-century peak of 750 acres in 1837 was halved in twelve years, and this total had dwindled to a mere 76 acres in 1866. The advent of the railway coincided with a critical period between 1839 and 1845 when inclement summers reduced the North Clays' yields to under three cwt per acre, and hop-growing was for six years a losing concern.³ The increased competition brought about by the railway exposed frequent mismanagement and assisted the general swing towards lighter types of beer necessitating better quality hops. The coarse North Clays' varieties were therefore confronted with a contracting market.

¹ A full account of the speculative nature of hop-growing is given by P. Mathias, *The Brewing Industry in England 1700-1830*, 1959, pp. 475-536.

² Essex Record Office, D:DO B.37, 3.

³ *Nottingham Journal*, 10 October 1845.

Hop-growing finally ceased in all three counties about the end of the last century (Essex 1887, Nottingham 1892, Suffolk 1906), leaving the commercial production of the specialized crop confined to the two areas where the extent of hop land had always been measured not in hundreds but in thousands of acres.

Notes and Comments

THE BRITISH AGRICULTURAL HISTORY SOCIETY

The joint winter conference with the Association of Agriculture was held at the London School of Economics on Saturday, 5 December. The president of the Society, Mr R. V. Lennard, took the chair. At the morning session, Professor J. G. D. Clark of the University of Cambridge addressed a large audience on 'The Early Spread of Agriculture in Europe.' The afternoon discussion of Professor Clark's paper was led by Mr B. C. Thomas of the University of Edinburgh, Mr C. Bowen of the Royal Commission on Historic Monuments, and Mr G. E. Fussell.

The annual general meeting and conference of the Society will be held at Keele Hall, University of Keele, from Wednesday, 7 April, to Friday, 9 April 1965. Details and an application form are enclosed.

Arrangements for the 1966 April conference in Dublin are in hand.

AN INTERNATIONAL GLOSSARY OF GEOGRAPHICAL TERMS

At the International Geographical Congress held in London in July 1964 a meeting was held to discuss the compilation of an international glossary of geographical terms used in the study of the historical and contemporary agricultural landscape. Geographers from many countries were present, and it was agreed that this work, which had already been discussed tentatively at two previous international congresses at Nancy and Vadstena, should be put in hand immediately. The glossary will include terms used in all lan-

guages, but the definitions are to be translated into three languages, English, French, and German, and possibly, if translators can be found, into Russian and Spanish.

Professor Harald Uhlig of the Geographical Institute, Justus-Liebig University, Giessen, was appointed secretary of the committee, and all material for the glossary will be assembled at Giessen. Correspondents were chosen from all other countries represented at the meeting, and a secretary was selected to collect contributions from his colleagues and keep in contact with the general secretary. Standard forms are being compiled on which the terms and definitions will be entered, and these should be ready by the middle of 1965. Anyone willing to assist by offering definitions and examples of the use of terms should write to the secretary for the United Kingdom, Dr R. H. Buchanan, Department of Geography, The Queen's University, Belfast.

It is hoped that agricultural historians will offer as much help as they can with this project, since the need to standardize the use of terms in agricultural history is urgent. A short glossary of terms used in the description of common-field farming was published in the REVIEW (Volume IX, 1961) and the editor will gladly offer space to any correspondence or other contributions on controversial or ambiguous terms which will assist this new enterprise.

LAND USE IN HERTFORDSHIRE

The Hertfordshire Local History Council has set up a committee to co-ordinate work on a

(continued on p. 60)

The Development of the Smallholding and Cottage Stock-keeping Economy of the New Forest¹

By C. R. TUBBS

THE NEW FOREST is the largest single tract in England where a smallholding economy, involving the use of common grazings, is the major agricultural feature. Of nearly 2,000 holdings, the majority under fifty acres, approximately two-thirds represent the main source of livelihood to their occupiers. The profitable management of these holdings, particularly of the smaller ones, rests largely on the exercise of rights of grazing and mast over about 38,000 acres of heath and rough pasture, and 5,000 acres of woodland. The purpose of this article is to demonstrate the antiquity of this state of affairs; to trace the factors affecting the exercise and value of common rights over the New Forest, mainly during the eighteenth, nineteenth, and present centuries, with particular attention to the demands of silviculture; to emphasize the necessity of the common lands to smallholders and cottage stock-keepers; and to sketch the characteristics of this economy in the nineteenth and twentieth centuries, using the few available figures. Despite modifications to the system, the smallholding and cottage stock-keeping economy of the New Forest has persisted remarkably intact, because the common rights of grazing and mast have been strenuously maintained.

I

Common rights may in general be regarded as having originated in the customary exploitation of the natural resources of lands deemed to be held in common ownership, during Anglo-Saxon and previous times.²

With the gradual appropriation of land by the Crown and by manorial lords, which was to form the basis of the feudal system, and with increasing pressure on land accompanying increases in the population, these customary,

¹ I am indebted to E. L. Jones and J. W. Y. Higgs for commenting on a draft of this paper.

² W. G. Hoskins, 'History of Common Lands and Common Rights', *Report of the Royal Commission on Common Lands*, Cmnd. 462, 1955-8, Appendix III, pp. 149-53, gives a clear picture of the origin and early history of common rights.

general, rights became closely defined and limited. What, in early English settlements, had been the unquestioned use of the common wastes, in medieval times became rights over the wastes exercised under privilege, and claimed by immemorial prescription, or grant. Eventually these were to become known as common rights.

The exercise of such rights, as an integral part of the rural economy, has survived in few areas of England today. With the trend towards farming in severalty, which involved the enclosure of the commons, and which culminated in the parliamentary enclosure movement of the eighteenth and nineteenth centuries, agricultural systems, dependent wholly or in part on the use of common lands by a class of cottager-smallholders, largely disappeared. The survival of such a system in the New Forest may be attributed to the legal accident that the area was royal forest, and was therefore bypassed by enclosure.

In the case of lands appropriated by the later Anglo-Saxon and Norman kings as royal forest, the exercise of common rights became limited and regulated by forest law, which was specifically designed for the protection of deer and all that the deer required.¹ During the midsummer fence month² and winter heyning³ domestic stock were supposed to be removed from the forest. The period during which pigs might be turned out was restricted to about two months during the autumn.⁴ Provisions were made for the strict preservation of vert, great and small.⁵

The act of afforestation did not necessarily involve changes in the ownership of the soil, nor did it necessarily imply a tree covering. It was based on the prerogative of the sovereign that all wild animals were in his possession. Persons whose freehold lands were included in a forest had to recognize the sovereign's right to the vert and venison therein, which in practice meant that they could not fence, cultivate, or fell timber on them, without the royal assent. The enforcement of such restrictions was one of the purposes of forest law.

Domesday Book shows that the greater part of the New Forest had been in the possession of the Crown some considerable time before the Conquest, and that changes which may be attributed to William I were an extension of

¹ Manwood (Manwode), *Treatise and Discourse on the Laws of the Forest*, 1589, 1615, 1665: the standard work on Forest Law.

² Defined by various dates at various times: by the nineteenth century accepted as 20 June–20 July, during which period the deer were dropping their fawns.

³ Defined by various dates at various times: by the nineteenth century accepted as 22 November–4 May, between which dates the deer were worst-pressed for food.

⁴ Defined by the nineteenth century as 25 September–22 November.

⁵ Timber trees and underwood respectively.

its area to include freehold lands over which the sovereign exercised his prerogative.

Until the seventeenth century, the extent to which the exercise of common rights was an integral part of the rural economy of the New Forest and its immediate area is reflected only in various grants of rights and presentments to the Forest Courts concerning their abuse. In 1670, however, all claims to common rights were registered before a Justice Seat for the Forest. This register was translated from the original Latin, and published for the Office of Woods, in 1853.¹ The entries are long and detailed, and by implication give a clear picture of the importance of common rights to the local economy.

A total of 307 claims were registered, appertaining to about 65,000 acres of private lands, both within and outside the current perambulation, but this relatively small number of claims refers to many times that number of holdings because the owners of a number of large estates submitted single claims in respect of all their tenants, each tenant's holding being described in the general claim. In the Register of Claims made in pursuance of the New Forest Deer Removal Act, 1851, about 1,200 separate claims were recognized, reflecting the conversion of numerous parcels of the large estates into small freeholdings.²

Most of the claims registered in 1670 refer to holdings of between one and fifty acres, and to rights of common of pasture for commonable beasts (cattle and ponies), rights of common of mast,³ turbary,⁴ estovers,⁵ and marl. The manors of Cadland and Beaulieu claimed rights of common of grazing for sheep, which appear to have been derived from grants of such rights to the Cistercian Abbey of Beaulieu. Turbary often appears from the context to include the taking of "furze faggots," and fern (for bedding or litter), whilst sometimes a right to take "furze, heath, and fern" is claimed separately. All but a very small number of claims are in respect of each right apart from that of grazing for sheep.

Most claims to pasture rights either state that the right is claimed "for all times of the year except the fence month" or "at all fit and proper times of the year according to the assize of the Forest." The winter heyning is never mentioned as such. Certain claims, mainly those derived from Letters Patent, specify the right of pasture to include the fence month. Similarly,

¹ *An Abstract of Claims in the New Forest*, 1853.

² *New Forest Register of Decisions on Claims to Forest Rights* (Commissioners acting under Act of 17 & 18. Vict., ch. 9), 1858.

³ Right to turn out pigs during the pannage season (25 September–22 November).

⁴ Right to take turf for fuel.

⁵ Right to take wood for fuel.

claims to rights of common of mast are not always confined to the pannage season: some are claimed for all times of the year, sometimes excepting the fence month. Theoretically at least, the rule of *levancy* and *couchancy* is admitted in the claims.¹

Rights of common of turbary and estovers were limited to that amount of turf and wood fuel respectively which was "reasonably necessary" to the claimant. Such rights were not to be exercised for profit by re-sale. Abuse of this stipulation later led to the close definition of the quantities which might be taken in respect of individual rights.

The Register shows that there were three main classes of persons who might exercise rights of common over the New Forest in the seventeenth century: the lords of the manors in or adjacent to the forest, owning the large estates; the very numerous customary tenants and copyholders of the manors, mostly with cottages and small pieces of ground attached, or with holdings of a few acres; and a class of freeholders with holdings not usually exceeding 50 acres, and more often of less than 20 acres.

The 1670 *Abstract* implies that the economy of the smallholdings and cottages, which comprised the bulk of the enclosed land in, and on the fringes of, the forest, was one of stock-keeping based on the use of the common lands. The judicious exercise of rights of grazing and mast, supplemented by those of turbary, estovers, and marl, the cutting of bracken for bedding and litter, and gorse for fodder, enabled the small farmer or cottager to maintain himself in a state of independence or semi-independence, impossible of attainment without his rights.

The extent to which this economy was dependent on common rights over the wastes is demonstrated by the complaint of certain copyholders of the Manor of Cadnam and Winsor, adjacent to the forest, to the Court of Chancery in 1591. This concerned the attempts of the lord of the manor to enclose the manorial waste.² The complainants deposed that they were "poore coppieholders of the manor of Cadnam and Winsor, and their whole estates and livynge" depended on their use of the common, "soo that yf they should be abrydged of their annycient customes it would be their utter undoing." The complainants received a favourable hearing.

II

The value of common rights over the New Forest appears to have become

¹ The limitation of the number of animals which might be turned out in summer to that which could be maintained on the holding during the winter.

² Quoted by G. E. Briscoe Eyre, *The New Forest, its Common Rights and Cottage Stock-Keepers*, 1883, p. 40.

considerably enhanced during the sixteenth, seventeenth, and eighteenth centuries by the increasing lack of interest shown by succeeding sovereigns in the preservation of the deer, and by the consequent laxity of forest administration. By late Tudor times little personal contact with the New Forest was maintained by the Crown, and interest was only subsequently to see a brief revival, as far as the deer were concerned, during the reign of Charles II. By the late sixteenth century, the forest courts were held only very irregularly, and it was uncertain precisely what offences were punishable by forest law.¹ The returns of the regarders of the forest to articles of inquiry into its condition, during the reigns of Elizabeth I, James I, and Charles II, show that stock was turned on to the forest and turf, timber, bracken, and furze cut almost without restriction. The fence month, winter heyning, and pannage season were disregarded. In addition, the keepers responsible for the day-to-day prevention of forest offences were themselves making a comfortable living from stock-keeping in the forest.² A report tendered to Parliament in 1789, and another in 1848, show the persistence of this state of affairs.³

The purpose of the Crown in the New Forest shows a gradual change from deer preservation to silviculture, beginning as early as the later fifteenth century, prompted during the seventeenth, eighteenth, and early nineteenth centuries by the demand for oak for the construction of warships, and culminating in the New Forest Deer Removal Act of 1851, by which the Crown relinquished its right in the deer and statutorily established its interests in forestry.

Successful silviculture demanded the enclosure of land against browsing by deer and commonable stock. Enclosure involved reductions in the area over which stock might range. It also, generally, involved the enclosure of the better soils, which in turn provided the best grazings. It was opposed, by commoners and Crown officials alike, at first more or less passively, later, in the nineteenth century, with the activity and bitterness of a class who foresaw the loss of their source of livelihood.

The early, medieval, enclosures—"encoppicements"—were usually farmed out on lease by the Crown, and since the tenants were usually local landowners with vested interests in the grazings, the coppices frequently de-

¹ Manwood, *op. cit.*, intended to clarify this situation.

² Public Record Office, E. 178, 2007, 3101, 3098, 2047, 3097, & 6453. Other, similar, returns, which I was unable to trace in the P.R.O., are quoted in a MS. document, 1875, examined by kind permission of the Forestry Commission, Lyndhurst, Hants.

³ 5th Report of H.M. Commissioners of Woods, Forests, and Land Revenues, 1789; Select Committee on the Woods, Forests, and Land Revenues of the Crown, *Report & Minutes of Evidence*, 1848.

generated into convenient stock-pounds or paddocks.¹ Depredations by the commoners and by minor Crown officials—the removal of hedges, the surreptitious felling of timber and clearing of underwood, the grazing of stock—were the subjects of constant presentments by the regarders, to inquiries by the Exchequer.² By the mid-seventeenth century it was clear that encoppicement was ineffectual for the purpose of timber conservation.³

The need for systematic, large-scale enclosure for the growth of timber was first met by an Act of 1698, which took powers to enclose 2,000 acres immediately, followed by 200 acres annually for twenty years. These enclosures were to be thrown open, once out of danger from browsing, and further enclosures made with the limitation that not more than 6,000 acres might be enclosed at any one time.⁴ Clearly, if the “rolling power” of enclosure was carried to its logical conclusion, the rights of the commoners would have been rendered valueless. I have been unable to trace any contemporary record of petitions against the Bill, but Briscoe Eyre, without stating his source, says that commoners’ petitions “describe the Forest as immemorially ‘a great nursery for breeding cattle’ and speak of ‘many thousands’ as ‘dependent’ on their rights of ‘pasture, turbary and pannage’ in it.”⁵ The Act, perhaps in consequence of such petitions, gave the commoners the first statutory recognition of their rights, and, further, provided that the land to be enclosed should be that which could be best spared from the common grazings. In fact, only 3,296 acres were ever enclosed as a result of the Act, and the plantations that were made received only brief periods of attention. By the closing decade of the eighteenth century three of the enclosures, totalling 735 acres, had been converted into rabbit warrens by the keepers, and the remainder were mostly in a state of degeneration.⁶

A further Act of 1808 provided for the re-enclosure of the 1698 plantations and the further enclosure of land up to a total of 6,000 acres at any one time behind fences.⁷ Between 1808 and 1848, 6,701 acres were planted.

Evidence before a Select Committee of the House of Commons in 1848

¹ The Hon. Gerald Lascelles, *Thirty-Five Years in the New Forest*, 1915, and Heywood Sumner, ‘J. Norden’s Survey of Mediaeval Encoppicements in the New Forest’, *Proc. Hants Field Club & Arch. Soc.*, 1928, pp. 95–7, give good general accounts of coppice management.

² See e.g. P.R.O. E.127, 2007, 3101, 3098, 2047, 3097.

³ See esp. P.R.O. E.127, 3097.

⁴ An Act for the Increase and Preservation of Timber in New Forest, 9 & 10. Will. III, 1698.

⁵ Briscoe Eyre, *op. cit.*, p. 40.

⁶ 5th Report of Commissioners . . . to enquire into . . . Woods, Forests, and Land Revenues, 1789, pp. 19–24.

⁷ An Act for the Increase and Preservation of Timber in Dean and New Forests, 9 & 10. William III, 1698.

showed that the deer, although still maintained in large numbers in the New Forest, were an expensive anachronism, incompatible with silviculture.¹ Evidence was also given to the effect that the deer competed with the commoners' stock on the grazings. The New Forest Deer Removal Act followed in 1851, and provided for the enclosure of 10,000 acres for silviculture, in addition to that enclosed in pursuance of the 1808 Act, and the "removal" of the deer within three years. The Act had far-reaching implications for the commoners, and there is some obscurity as to how it was 'bulldozed' through Parliament without their views being heard.

III

The Deer Removal Act was the subject of bitter agitations among the commoners. The Crown—as represented by the Office of Woods—claimed a "rolling power" of enclosure which could ultimately reduce their rights to a negligible value. In evidence before a Select Committee of 1868 it was freely admitted by the Chief Commissioner of Woods that this was in fact intended.² The enclosures made following the Act took in much of the better grazings: it was claimed that the commoners had neither prior warning of, nor the opportunity to object to, the siting of new enclosures. Further, although the deer had been "removed," the Crown still reserved to itself its old forestal rights, and attempts were made to enforce the fence month and winter heyning.³

The removal of the deer had in itself upset the equilibrium in the biotic control of the vegetation. The scrub, which they had formerly browsed down, particularly in winter when keep was short, encroached rapidly across the grazings. Partly in consequence of this, drainage became impeded, and the grazings on the lower ground deteriorated further. Money from the sale of forest land for the construction of the London and Dorchester Railway, which had been statutorily designated for the provision of drains in the forest, had never been used for that purpose by the Office of Woods.

This was some of the substance of complaint: but the most general cause for bitterness was the avowed intention of the Office of Woods to reduce the real value of common rights by a policy of enclosing and planting as much of

¹ Select Committee on the New Forest, *Minutes of Evidence*, 1868, Question 319 quotes this evidence and comments on it.

² Select Committee on the New Forest, *loc. cit.*, q. 807.

³ Select Committee on the New Forest, *loc. cit.*, q. 424-5, 433-5. It is doubtful whether either the winter heyning or fence month had been enforced successfully in the New Forest since about the sixteenth century. An Act of 1819, providing for the exclusion of cattle and ponies from the New Forest in winter (but apparently never implemented), implies that existing powers were insufficient.

the better grazing as possible, in order that compensation to the commoners in the event of disafforestation and partition should be as little as possible.¹

Petitions to the House of Lords in 1867 resulted in the appointment of a Select Committee to inquire into the causes for complaint. Its report, however, proved unfavourable to the commoners, and the minutes of evidence reveal a distinct prejudice on the part of their lordships towards a class of independent smallholder-commoners. The complaints of the commoners were further voiced before a Select Committee of the House of Commons in 1875. In a more radical atmosphere, legislation followed. The New Forest Act, 1877, assigned a statutory area of 39,946 acres of heathland and rough pasture and 5,000 acres of woodland, over which common rights might be exercised under the supervision of a verderer's court, reconstituted to fulfil that purpose.

The minutes of evidence of the Select Committees of 1867 and 1875 clearly show the value of common rights, the extent to which those exercising such rights were dependent upon them, and the overall depreciation in their value resulting from sylvicultural enclosures. *The Register of Decisions of Claims to Rights of Common*, published in 1857, Briscoe Eyre's study, and keepers' diaries and account books for the periods 1839-52, 1853-6, 1855-62, and 1864-71,² are further major contemporary sources which provide a picture of the smallholding economy of the New Forest during the middle and latter parts of the nineteenth century.

The preamble to the *Register of Decisions of Claims* . . . 1857, makes it clear that although the Crown had relinquished its interest in deer preservation, the exercise of common rights remained subject to the restrictions of the fence month, winter heyning, and pannage season. The former two restrictions, a bone of contention between Crown and commoners, were finally removed by a provision of the New Forest Act, 1877.

Turbary rights were limited by the Register to specified numbers of turves in respect of each right. This right, and those of estovers and marl, were to be exercised only "by the view and allowance of the foresters"—in practice the keepers employed by the Office of Woods.

The commissioners responsible for the Register considered 1,311 claims, almost every one for rights of pasture, turbary, estovers, and mast, many also for marl, and a few for rights of common of pasture for sheep. Approximately

¹ A letter from the Deputy Surveyor of the Forest to the Chief Commissioner of Woods, dated 31 December 1853, which was produced as evidence before the Select Committees of 1868 and 1875, explicitly advises this course.

² I am indebted to the Deputy Surveyor of the New Forest, Mr Arthur Cadman, for making these available to me.

1,200 claims were allowed, but in no case were they allowed for all the rights claimed. The intention seems to have been a "tightening up" of the former, almost unrestricted, use of the open forest.

In evidence before the Select Committee of 1875, Mr W. C. D. Esdaile, J.P., analysed the Register as follows:

"I find that the smaller commoners come out . . .

"207 own 1 acre,

"200 ,, 1-4 acres,

"126 ,, 4-10 acres,

"51 ,, 10-20 acres,

"44 ,, 20-30 acres,

"beyond which I have taken them to be larger holders."¹ These figures referred to freeholders only. Of the "larger holders"—i.e. the 571 claims allowed in the Register, making up the difference between the 629 claims above and the total of 1,200—the majority of claims were in respect of holdings of less than 80 acres: a number were for the larger estates, each of which submitted single claims for up to 150 tenants. On Minstead Manor, for example, there were 105 tenants with common rights, each occupying holdings of less than 50 acres, and mostly of less than 20 acres.

It is worth comparing these figures with those of Kenchington in 1944. He gives the total number of agricultural holdings in New Forest parishes as 1,995, subdivided as follows: 731 under 5 acres; 316 between 5 and 10 acres; 274 between 10 and 20 acres; 287 between 20 and 50 acres; 178 between 50 and 100 acres; and 218 over 100 acres.² Not all these holdings had common rights attached to them, but an Act of 1879 empowered the verderers to issue licences for the depasturing of stock to non-commoners. Of the total, Kenchington estimated that approximately two-thirds of the holdings were the main source of livelihood to their occupiers. He states that "holdings smaller than 50 acres . . . account for approximately 23 per cent of the total area of agricultural land," but that they represented 81 per cent of the total number of holdings. His description of these smaller holdings may broadly be considered to hold good today: "Many of these tiny holdings are equipped and stocked not as smallholdings proper, but as miniature farms. Most engage in cattle keeping, either as cowkeepers or as rearers of young horned stock, using the holdings as a source of winter forage and pasturage, and a winter base for stock running on the Forest".

The extent to which the "small commoner" was dependent on the use of the open forest in the nineteenth century is made abundantly clear by evi-

¹ Select Committee on the New Forest, *Minutes of Evidence*, 1875, q. 1648.

² F. E. Kenchington, *The Commoners' New Forest*, 1944, pp. 145-6.

dence given before the Select Committees of 1868 and 1875, and, again, in the twentieth century, by evidence given before the New Forest Committee, 1947. The tenor of evidence given before the earlier two committees was that the right of common of grazing enabled a commoner to maintain about three times as many cattle as he would be able to maintain without the right. Before the 1947 committee one commoner stated that "he could keep three times as many cattle on a holding in the forest as on 50 acres in the Midlands."¹

IV

The precise value of common rights has never been legally determined. In evidence before the Select Committee of 1848, it was estimated that in the event of disafforestation the interest of the commoners was about one-half the area of Crown lands. It was later suggested, before the committees of 1868 and 1875, that it lay at between one half and two-thirds. In fact, as a result of the enclosure of much of the better grazings following the Act of 1851, the real value was considered to have considerably depreciated. It was estimated that if the Office of Woods exercised its claimed "rolling power" of enclosure to take in the remaining areas of good grazings, stated to be about 11,000 acres, the real value would be reduced to about one-sixth.

Mr W. C. D. Esdaile, in evidence before the committee of 1865, stated that it was felt among the smaller commoners that "to lose the common rights . . . would be simply ruin; they would not be able to manage their land in the way they do now . . . I have never been able to find a small owner who would be willing to be compensated for the right which he has."² A considerable weight of evidence, tendered mainly by Messrs Esdaile, Castleton, Lovell, Compton, and Egerton, was given in confirmation. It was stated, for example, that "The 'turning out' belonging to the 'small places' was as valuable as the places themselves pretty near," and that "the place would be no use (without common rights) . . . not worth the value to sell."³ A small commoner, asked if he could live on his $3\frac{1}{2}$ acres without the right of turning out cattle on the forest, answered with a simple "No."⁴ It was strongly emphasized that the partition of the forest and allotment between the interested parties—Crown, or Office of Woods, and commoners—would involve the displacement of the larger proportion of small commoners. It was considered that the allotment of the waste in severalty, should disafforestation and general enclosure take place, would be negligible compensation to the commoner for his share in the joint enjoyment of the common lands of the forest as a whole. The events of

¹ New Forest Committee, *Report*, Cmnd. 7245, 1947, p. 46.

² Select Committee on the New Forest, *loc. cit.*, 1875, q. 1648.

³ *Ibid.*, qq. 3299, 3063. ⁴ *Ibid.*, q. 3303.

the early decades of the nineteenth century showed that, in practice, enclosure and allotment deprived similar classes of their livelihood.

Briscoe Eyre enlarges on the value of the wide range provided by the forest for stock, as follows. "Attention should perhaps be drawn to some elements which make this region a type of what commonable pasture land should be. It combines an extended range with considerable variety of soil and of water-supply, and with, perhaps, every variety of shelter and exposure. Any deficiency in one section, especially in running water, is supplied by sufficiency or excess in another; constant change of ground (essential to success in stock-management) is ensured." Briscoe Eyre notes that "the region is characterized by a moderate but widespread prosperity, even in these hard times, and by the low percentage of pauperism . . . and this can be distinctly traced to the judicious exercise of common rights." He describes the wastes as the "cottager's farm," the source of his livelihood and of a modest capital.¹

The right of common of turbary was allowed in respect of about 1,500 dwellings by the *Register of Decisions of Claims* . . . 1857. The manuscript account book of George Cooper Jnr, Keeper of Boldrewood and Castlemalwood Walks for the years 1853-6, shows an average of 518,000 turves cut annually during that period.² The manuscript account book of Harry Cooper, Keeper of Eyeworth and Bramblehill Walks for the years 1864-71, shows an average of 233,570 turves cut annually. There were fifteen walks in the forest at the time.

Briscoe Eyre states that "A single right averages about 4,000 turves . . . and with its necessary complement of a few faggots or a little stump-wood, keeps a cottager in fuel through the winter. The value of such a right is estimated roughly at 10s. to £1 per annum, but as is the case with all common rights, the indirect value is very great and very difficult to define; when combined with a right of fuel-wood each right greatly enhances the value of the other."³

Estover rights were satisfied by the cutting and assignment of a specified number of cords of wood by forest officials. The policy of the Office of Woods had always been to reduce the numbers of such rights by purchase. Briscoe Eyre gives a total annual assignment of 376 cords, consisting of seven "large" rights totalling 94 cords, and a large number of "small" rights of a few cords each. Lascelles states that the annual assignment was reduced by purchase, from 840 cords in 1815 to 370 in 1880 and, further, to 240 in 1915.⁴

¹ Briscoe Eyre, *op. cit.*, pp. 41-2.

² In the possession of the Forestry Commission, Lyndhurst, Hants.

³ Briscoe Eyre, *op. cit.*, p. 43.

⁴ Briscoe Eyre, *op. cit.*, p. 44; Lascelles, *op. cit.*, p. 70.

The importance of turbary and estover rights dwindled with increasing labour costs and the opening-up of the forest by roads and railways in the late nineteenth and present centuries. It is doubtful whether either right could be considered an integral part of the smallholder's economy by 1915, but unfortunately no records appear to have been kept which might demonstrate the decreasing importance of these rights. So far as I am aware, turves are cut on the forest at the present time by no more than about a dozen right-holders. Rights of estover have been further reduced in number by purchase: in 1947 only 108 such rights remained.¹

The exercise of rights of common of marl appears to have lapsed by the late nineteenth century. Keepers' diaries and account books contain no reference to the right. Trimmer, writing in 1856, drew attention to the agricultural importance of the marls of the New Forest, but his whole essay gives the impression that little advantage was taken of them. Spooner, writing in 1871, gives the impression that the right had not then been exercised for some time. Williamson and Briscoe Eyre mention the existence of the right only in passing.²

The cutting of bracken for bedding and litter was a widespread and valuable custom in the New Forest during the eighteenth and nineteenth centuries, exercised by immemorial prescription, but not recognized as a right of common, although in certain cases it was claimed as such in the Register of Claims made in 1670. It was not recognized as a right in the 1857 Register, and according to Briscoe Eyre "fern" was subsequently sold by the Office of Woods "under conditions generally considered to be prohibitive." He adds that it was bought "chiefly from necessity."³ The testimony of smallholders in the forest today is that "fern" was cut in large quantities until recent times. At present it is cut at a nominal fee charged by the Forestry Commission. In 1962 about 100 acres of bracken were cut on the forest, and on a number of commons—wastes of various manors—adjacent to the forest.

The cutting of gorse for fodder appears also to have been a widespread practice, although not recognized as a right of common. Briscoe Eyre refers to the gathering of "furze tops" in winter. There appears to be no evidence for its deliberate cultivation in or near the New Forest, although it was certainly cultivated elsewhere in England during and previous to the nineteenth

¹ New Forest Committee, *Report*, Cmnd. 7245, 1947, p. 49.

² Joshua Trimmer, 'On the Agricultural Relations of the Western Tertiary District of Hampshire and the Agricultural Importance of the Marls of the New Forest', *JRASE*, VIII, 1856; W. C. Spooner, 'On the Agricultural Capabilities of the New Forest', *JRASE*, 2nd Ser., VIII, 1871, p. 255; John Williamson, 'The Farming of Hampshire', *JRASE*, XXII, 1861, p. 335; Briscoe Eyre, *op. cit.*, p. 42.

³ Briscoe Eyre, *op. cit.*, p. 42.

century. Gilpin mentions the cutting of gorse faggots in the forest for firing pottery kilns, and it would seem that the cutting and carting of "furze and heath faggots" for the kilns was a frequent "sideline" of numbers of cottager-commoners.¹ The manuscript account book of George Cooper Jnr., a forest keeper, contains references to sales of quantities of up to 4,000 "furze faggots" at between 3d. and 6d. per hundred, between 1853 and 1855, although there is no indication as to their use or destination.

The exercise of the rights of turbary, estovers, and marl, and the customs of bracken- and gorse-cutting, may be regarded as reducing or eliminating heating costs, and reducing necessary overhead costs of manuring and stock-keeping on the holding. The rights of grazing and pannage fulfilled an even more important function in that they reduced both overhead costs of stock-keeping and capital expenditure on land. To this last function may be largely attributed the survival of the smallholding economy of the forest into modern times. The rights of grazing and mast continued to be of major importance, whilst other rights lapsed.

V

The New Forest commoner, dependent or partly dependent on his common rights in the nineteenth century, belonged to a class of producer which did not normally keep accounts. Most of the occupiers of the smaller holdings had two or three sources of livelihood, inextricably intermixed, revolving round, but not necessarily wholly dependent on, their common rights. The direct financial advantages of the rights are therefore difficult to isolate and assess at any given period. Briscoe Eyre attempts to do so for the 1870's from his special local knowledge.

The value of the right of mast he describes as varying with the season and with the capital available to the commoner for buying in "early and cheap, as many pigs as he can hope to keep until September 25th." He estimates that at the end of the average pannage season "they return bettered to the value of about 10s. to 20s. a head, and fit for immediate sale." In a good mast year "£5 thus laid out may be doubled in three months . . . cottagers have been known to make £20 a year by their pigs."²

Spooner considered that the right of mast was of more comparative value than that of grazing. He also gives the only nineteenth-century figures, which

¹ Briscoe Eyre, *op. cit.*, p. 47; Thomas Page, 'On the Culture of Furze', *Annals of Agric.*, ix, 1788, pp. 215-17; Sandham Elly, 'On the Cultivation and Preparation of Gorse as Food for Cattle', *JRASE*, 1st Ser., vi, 1846, pp. 523-28; William Gilpin, *Remarks on Forest Scenery*, II, 1834 edn., p. 39; Briscoe Eyre, *op. cit.*, p. 48.

² Briscoe Eyre, *op. cit.*, p. 45.

I have been able to trace, for the total numbers of pigs turned out in the forest. These are for the period 1865-9, and are as follows: 1865, 1,575; 1866, 5,893; 1867, 3,475; 1868, 5,139; 1869, 3,721. The considerable annual fluctuations most probably reflect variations in the quality of the mast year, although the very low figure for 1865 may reflect a marked price movement. The figures in general compare with those of the numbers of pigs turned out at the present time.¹

It is clear from Briscoe Eyre's evidence that overhead costs were most reduced in the case of ponies, which required the minimum of labour and superintendence. He gives the price of yearling fillies as between £4 10s. and £6, and the total cost of running them on the forest as 5s. 5d. per annum, including marking fees. "The fillies . . ." he says, "run with the mares, and in their fourth year breed a good colt. Brood mares are much valued and are rarely sold; a very good one will fetch £15." He gives the average annual profit on a troop of five ponies as £20.²

He takes the cost of a heifer as between £2 and £4, and describes them as "nearly as self-maintaining as pony stock, until they have their calf . . . in the spring they may be sold with calf at side for £10 to £14 each."³

It is tempting to quote at length on particular aspects of the economy from Briscoe Eyre's admirable study, but it is here proposed to confine further detail to a passage citing the accounts of an exceptional smallholder who kept records, and to a short summarizing passage. "It is possible to give the actual profits of a twelvemonth's stock-keeping on a little place of six acres, with cottage, cowpen, and pigstye," he states. The stock kept on this holding was three cows, a heifer, and a weanling calf: 24 pigs were also bought in for the pannage season and subsequently sold. The accounts included the labour bill for all rough work, haymaking, and cleaning and emptying the pens and styes. The profits "on the cow kind—made by the sale of butter, new milk at 4d. per quart, skim-milk (to oblige) at 1d. a quart—amounted to £39 18s. 6d." The profits on the pigs amounted to £21 13s. 3d., making a net profit of £61 13s. 3d. He adds that the maximum profit made by this holding in any year was £77 5s. 11d., and the minimum profit £59. It will be noted that no reference is made to ponies.

Eyre sums up as follows: "The profits of his holding will compare with those of a farm in an enclosed country of about thrice the size and of about twice the rent. The cow provides the weekly, the pig a quarterly, and the heifer or pony an annual income, which can be re-invested . . . at a good or even high rate of interest."⁴

¹ Spooner, *loc. cit.*, p. 228.

² Briscoe Eyre, *op. cit.*, p. 46.

³ *Ibid.*

⁴ *Ibid.*, pp. 49-51.

The only records for the total numbers of stock on the forest previous to 1910 are for 1871, 1879, and 1884. There is thus little information to show the overall reactions of the commoners to depreciations in the value of their rights resulting from silviculture, enclosures, or fluctuations in market prices in the nineteenth century.

It was claimed before the Select Committees of 1868 and 1875 that the numbers of cattle turned out had, indeed, decreased as a result of enclosure of some of the grazings, but no data were produced to substantiate this.

Spooner, writing in 1871, gives a figure of "about 3,000 ponies, heifers, and cows" turned out annually at that time. He adds that "there used to be many more." A census of stock numbers made in 1875 gives 2,903 ponies, 2,220 cattle, and 438 sheep: a total of 5,561 head of stock.¹ A further census, in 1884, gives 2,250 ponies and 3,450 cattle: a total of 5,700 head. The reduction in the number of ponies between 1878 and 1884 may possibly be related to the falling market for pit-ponies consequent upon features introduced into the breed by crossing with Arab stallions at this time, and the rise in the number of cattle to increasing market prices for dairy produce during the same period, but it is difficult to draw conclusions, however tentative, from the sparse data.

VI

It is convenient at this point to consider the markets found by the New Forest pony, and the unsatisfactory changes to which the breed was subjected during the late nineteenth century.

Brief reference has already been made to the introduction of Arab blood. It has proved surprisingly difficult to trace any precise description of the breed prior to the use of Arab stallions, which began during the 1870's, although there are numerous general accounts. These refer to a stocky animal of eleven or twelve hands, hardy, and well able to over-winter on the forest unattended. Wise, in 1863, for example, describes the forest pony as "strong and hardy, living on nothing in the winter but the furze. . . ."² The arguments are too long to enter into here, but various considerations lead me to believe that the breed may have borne a close resemblance to the primitive strain of southern Sweden.

Williamson, Spooner, and other writers of the 1850's and 1860's commented that the breed was degenerating owing to the lack of care in the choice of stallions.³ Whether this was so, or whether such writers were in-

¹ Spooner, *loc. cit.*, p. 227; New Forest Committee, *Report*, 1947, p. 50. The reference to sheep is the last which refers to the extensive use of sheep rights.

² John R. Wise, *The New Forest, its History and Scenery*, 1863, p. 259.

³ Williamson, *loc. cit.*, pp. 236-7; Spooner, *loc. cit.*, pp. 279-80.

fluenced by the late Victorian enthusiasm for "improvement," and the markets which a taller, slenderer animal might find as saddle horses, is open to debate. The introduction of Arab blood was advocated, and Arab stallions were used in the 1870's and 1880's. The visible results were, generally, an increase in height and a tendency to throw a spindly, slender animal. More important, a temperamental strain was introduced, and also the breed lost much of its hardiness and ability to over-winter on the forest without assistance: it was no longer functional in its semi-natural environment. The market for small, quiet colliery ponies dropped, and only the better-looking animals found a market as saddle horses. Light road transport continued to take them, however, until the adoption of the motor-car after the war of 1914-18. After that, trade slumped, and by the mid-1930's outlets could be found only by a minority of large dealers making a wholesale trade at low prices and narrow profit margins. The war of 1939-45 saw a new outlet in the horse-flesh trade, and after 1942 market prices started to rise, a trend which has continued since with the increasing demands for riding ponies.

Certain attempts were made early in this century to "breed back" to the "original" forest pony. In more recent years, the careful choice of stallions has undoubtedly improved the strain, particularly its ability to survive the winter unaided, but it must be admitted that the present New Forest pony retains many defects.

VII

Figures given in 1947 show that the total number of stock on the forest averaged 3,595 head annually during the period 1910-14. In 1915 it stood at 3,200, and in 1916 at 3,130. Mounting market prices after 1917 are reflected in a corresponding rise in stock numbers—mainly cattle—to a peak of 4,550 in 1920. Thereafter there was a steady decline, following falling market prices, until at the outbreak of war in 1939 there were only 1,757 animals on the forest, of which 1,000 were cattle.¹ A particularly serious blow to the smallholder-commoner during the inter-war period was the loss of the farmhouse-butter trade in the face of wholesale imports, mainly from New Zealand and Australia. The importation of Danish bacon was similarly serious. The national trend to liquid milk production appears to have been followed by a large proportion of the commoners. Kenchington, commenting on the effects of the inter-war period on the small commoner, noted that "Cheap corn and cake well suited the grazier, stockman, pigman, and poultryman side of the forester's agriculture. . ."² The low overheads made possible by the use of the commons enabled the commoners as a class to "get by," the

¹ New Forest Committee, *Report*, 1947, pp. 51-2.

² Kenchington, *op. cit.*, p. 124.

profits of the family holding often being supplemented by work in the growing light-industry zone of Southampton.

In 1940 the stock figure stood at 1,485: 571 ponies and 908 cattle. Thereafter, with rising market prices for heifers and dairy produce—one of the commoners' main lines of production—and the new trade in horse-flesh, the number of stock on the forest rose steadily. In 1946 it stood at 3,082 cattle and 775 ponies.

The period 1944-8 saw the first deliberate efforts to improve the forest grazings. During the inter-war period they had suffered a deterioration into scrub, and with the drive to encourage the rearing of dairy stock it was apparent that some reclamation was necessary. Accordingly, between 1944 and 1948 some 1,000 acres were cropped and finally reseeded, most of the sites having remained in fairly good condition since.¹ The New Forest Act, 1949, provided for further, similar improvements by the verderers. It is beyond the scope of this paper to consider the present rural economy of the New Forest, but it is worth noting, as a reflection of a fairly sound modern pastoral industry, that limited advantage has been taken of this provision. It is, finally, of interest to note that the numbers of stock at present depastured on the New Forest compare favourably with those given in the census of 1884.

¹ D. R. Browning, 'The New Forest Pastoral Development Scheme', *Agriculture*, LVII, 1951, pp. 226-33.

NOTES ON CONTRIBUTORS

E. A. Cox, B.A., is a teacher in geography at St Nicholas Grammar School, Northwood, Middlesex.

B. R. Dittmer, B.A., is a teacher in geography at a grammar school in Northallerton.

A. E. B. Owen, M.A., is an assistant under-librarian in the manuscripts department, Cambridge University Library, and has written articles on Lincolnshire local history and on land drainage history.

D. C. D. Pocock is a lecturer in geography at Queen's College, Dundee, in the University of St Andrews. He has published papers on

urban geography and on industrial geography.

F. W. Steer, M.A., F.S.A., is county archivist of West Sussex and archivist to the Diocese of Chichester. His publications include *Farm and Cottage Inventories of Mid-Essex, 1635-1749*, catalogues of various collections of archives, and papers on local history and antiquities.

C. R. Tubbs is a biologist at present employed by the Nature Conservancy as Assistant Regional Officer (South). Most of his research has been in the field of ecological history, especially in areas of low agricultural production such as the New Forest.

A Thirteenth-century Agreement on Water for Livestock in the Lindsey Marsh

By A. E. B. OWEN

MEDIEVAL disputes over water rights are common enough, but they usually concern such matters as millstreams, fishing, or navigation. Domestic water-supply figures much less frequently as a subject of dispute, and water for livestock almost not at all.¹ In a climate such as ours this may, perhaps, seem hardly surprising. Yet an abundance of water for man and beast cannot always be taken for granted. Paradoxically, it is in low-lying regions intersected with watercourses and subject to periodic flooding that the problem of securing a supply of drinkable water is sometimes most acute.² A supply from surface sources is readily contaminated,³ especially in time of flood or drought: in the latter event it may vanish altogether; and in the depths of winter it may be frozen.⁴ The sinking of deep wells, on the other hand, may not be practicable. Wheeler, writing of the Lincolnshire fens at

the end of the last century, pointed out that in silty soils the underground water level was affected to a considerable distance inland by the tides, so that wells or ponds sunk more than 12 to 15 feet deep were found to become brackish. But attempts to obtain water from deep wells met with only limited success owing to the great depth of the water-bearing strata in the fenland. A boring at Boston in 1828, for example, penetrated 572 feet without striking water and had to be abandoned.⁵ (The modern water supply of Boston and other fenland towns is, for this reason, drawn from borings or reservoirs outside the fen basin.) Some use could be made of rain water for domestic purposes, but the principal source of supply was either the fen rivers and drains, or shallow wells.

Skertchly, writing in the 1870's, has some pungent comments on these wells. "The question [he says] of water supply from wells

¹ F. W. Robins, *The Story of Water Supply*, 1946, p. 97, remarks that in medieval Europe such works of water supply as were carried out were largely monastic: "water was rarely used for drinking save by the poorer classes." He finds little to say about provision of water specifically for livestock apart from a chapter on dewponds.

² "Rotterdam. Grocers today sold fresh water at about 3d. a litre. The city supply is almost undrinkable, with a salt content ten times above normal. Rotterdam's water comes from the Maas, a tributary of the Rhine, and sea water has penetrated further upstream than usual because ice upstream is blocking the flow of Rhine water."—*The Times*, 25 Jan. 1963.

³ When the Haarlemmer Meer was drained and settled in 1852 there were deaths from cholera because of the lack of good drinking water: "the death rate was exceedingly high for some decades."—J. Van Veen, *Dredge, Drain, Reclaim*, The Hague, 4th edn, 1955, p. 59.

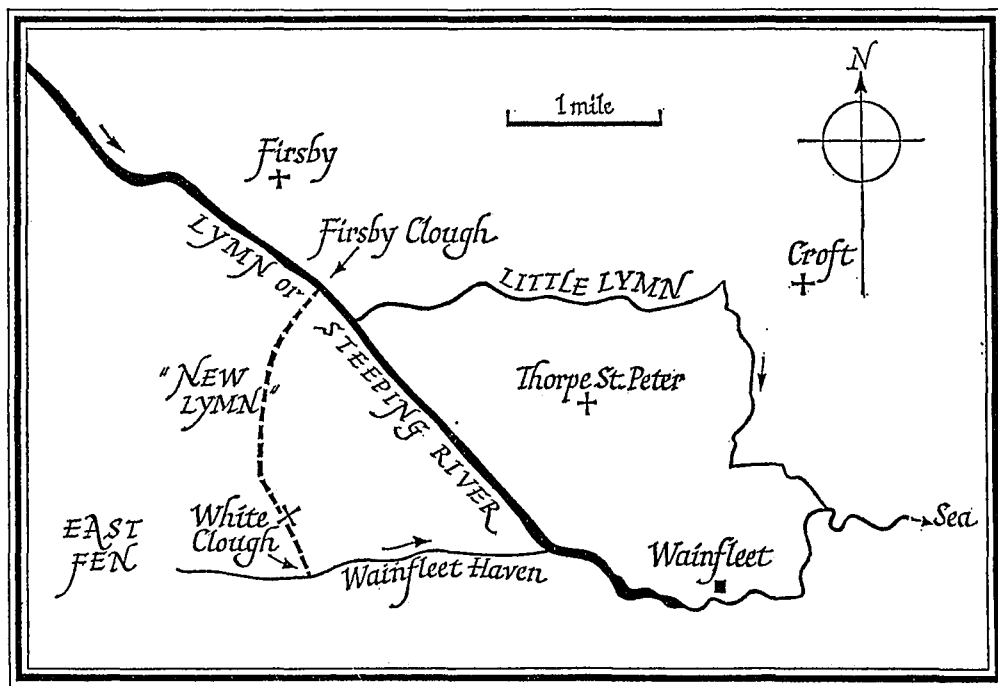
⁴ About 1375 the men of Gaywood refused to let the men of Lynn have water in a great winter frost. King's Lynn Chamberlains' Accounts, 48-49 Edw. III. (I am indebted to my wife for this reference.)

⁵ W. H. Wheeler, *History of the Fens of South Lincolnshire*, 2nd edn, 1894, p. 467. Van Veen (*op. cit.*, pp. 123-4) describes similar difficulties in the Netherlands, where seepages of sea water in the reclaimed polders were found to be poisoning the crops. "Horticulturists . . . proved that even in dilutions at which a brackish taste was hardly perceptible, the effect on fine horticultural crops was a diminishing yield." Deep wells sunk by farmers to obtain cold water from the subsoil for cooling their milk in summer also proved brackish.

in the fenland might almost be written like the celebrated chapter on 'Snakes in Ireland'. There are no snakes in Ireland, says the astute author. There is no good water supply, says the geologist." He had "no hesitation in condemning the whole of the shallow wells in the district as unfit for potable purposes." They were all more or less contaminated: "we should be glad to see all water from shallow wells prohibited, for it is rarely, if ever, fit for either man or beast." The analyses of such water chosen to accompany these remarks are suitably horrifying.¹ The supply from rivers was relatively (though not much) purer, at least when filtered. That from the fen drains might seem more questionable; but Wheeler² says: "The principal fen drains are replenished in summer by water admitted into them from the high land streams, which restores the loss by evaporation and absorption, and also affords a fresh supply for the cattle."³ The water thus introduced is termed 'living' water

to distinguish it from the stagnant water in the drains."

The document now printed serves partly to illustrate this paradox of water shortage in a seemingly well-watered region. But its interest lies also in its record of a medieval arrangement for the summer watering of stock—an arrangement which remained in force for more than five centuries, and which shows the practice of summer "refreshing" of the drains, described by Wheeler in the nineteenth century, already in use in the thirteenth. The East Lincolnshire manor of Croft to which this relates is not, indeed, in the fenland but just beyond its borders at the southern extremity of the Lindsey Marsh. There is, however, no marked difference in character here between the marsh and the adjacent parts of the East Fen. The latter, of course, lies lower, has a thin covering of peat, and was not reclaimed till much later; but the stranger may well fail to perceive these differences.



¹ S. H. Miller and S. B. J. Skerthly, *The Fenland Past and Present*, 1878, p. 429 et seq.

² Wheeler, *op. cit.*, p. 469.

³ That it was also used for human consumption may be assumed from the situation of many cottages on drain banks.

The drainage is physically linked, the subsoil is the same, and the problems of water supply are similar.

A brief account of local drainage history must first be given in order to understand what follows. The principal river, the Lymn or Steeping, rises in the wolds, enters the marsh at Steeping, and, after passing Firsby, follows what is now a nearly straight course across the marsh to Wainfleet: it then takes a more devious course to its outfall into the Wash at Gibraltar Point (see map). The channel from Firsby to Wainfleet, however, was cut only in 1818 in connection with the reclamation of the East Fen. Before that time the river took a quite different route between these two places: turning abruptly to the south at Firsby Clough, it followed the edge of the East Fen to the head of Wainfleet Haven at White Cross Clough where it received the fen water through converging streams, and then flowed down the haven to Wainfleet. This is the course shown on Dugdale's map of 1661.¹ But the two nearly right-angled turns at the two "cloughs" suggest an artificial origin for this course, which probably represents a medieval diversion intended to benefit the port of Wainfleet by bringing the river waters to help scour the haven—a task for which the sluggish fen waters unaided were quite inadequate. The importance to Wainfleet of the scour provided by the river is often mentioned in records: when for any reason the flow of river water was interrupted, the haven rapidly silted up so that shipping could not get into the port. Diversions of streams for a similar purpose are known elsewhere along the Lincolnshire coast.² The date of the Lymn diver-

sion has yet to be discovered, but it must have been completed by 1219 when a final concord mentions the "new Lymn" in Thorpe St Peter.³ The original course of the river can still be followed: beginning at Firsby Clough, it runs eastwards to Croft, then south almost to Wainfleet, then east again to rejoin the main river near its outfall. Though now only a local drain it still bears the name of the Lymn, or, for distinction, the Little Lymn (though the main river is now generally known as the Steeping).

The gain to Wainfleet by this diversion could only represent loss to the riparian vill of Croft and Thorpe St Peter on each side of the Little Lymn. The flow of "high land" water down the river was, in a different way, as essential to them as it now became to Wainfleet Haven. Only a few small streams and the field drainage entered the Little Lymn below Firsby Clough; the effect of diverting the main flow of the river at that point would thus be to leave the old channel with little more than a trickle of water in a dry summer. This would lower the level of water in every field dike, as well as lowering the water table generally. As a result the dike-side drinking-places for stock would shrink or dry up altogether, and the rich marsh pastures cease to be so rich.⁴ We cannot know whether any provision was made at the outset for an occasional intake of water from the main river to counteract this, or whether such effects had even been foreseen. But the preamble to the agreement of 1240 leaves no doubt that the "agricultural interest" represented by Philip de Kyme and his tenants was left dissatisfied with whatever arrangement had formerly been made with

¹ W. Dugdale, *History of Imbanking and Draining*, 1772 edn, p. 423: "A Map of the East and West Fens."

² The river Freshney was diverted into the haven of Grimsby for a similar purpose: the scheme was proposed in 1280 and again in 1328 (Dugdale, *op. cit.*, pp. 154, 156), but the date of its eventual execution is uncertain. The Withern Eau was diverted to Saltfleet Haven from its natural outfall (two miles further south) some time before 1347.—A. E. B. Owen, 'Early History of Saltfleet Haven', *Lincs. Archit. & Archaeol. Soc. Reports & Papers*, v, 1954, pp. 98–100.

³ *Novam Lim'*: P.R.O. C.P. 25(1)/128/14 no. 118. Calendared, with minor inaccuracies, in *Abstracts of Final Concords for Lincs.*, ed. W. K. Boyd, 1896, p. 151.

⁴ The Marsh is by nature well suited for grazing. Dr Joan Thirsk (*English Peasant Farming*, 1957, p. 69) has shown that in the sixteenth century it was a region "specializing in meat production. . . The economy was based upon the rearing and fattening of cattle and sheep." It is probable that livestock played an equally important rôle in the local economy of the thirteenth century.

the "commercial interest" of Wainfleet;¹ for the obstruction by the former of "a certain water in Thorpe" can only imply an attempt to block the new channel of the river and turn it back into its old course past Croft. The agreement therefore attempted a compromise which would give both parties a fair share of water at the season when both needed it most. The essence of this is simple. Between Michaelmas and Easter each year the river was to flow unobstructed along its new channel to Wainfleet. At Easter and for three weeks thereafter the river might be diverted back into its old channel "to refresh the ditches of the manor of Croft and to water the cattle". Then for the next three weeks the water was to flow to Wainfleet again, and so on for alternate periods of three weeks until Michaelmas when the arrangement ceased.

"This² is the agreement made between Hawise de Quincey Countess of Lincoln and Philip de Kyme at Lincoln in three weeks from Easter in the 24th year of the reign of king Henry son of king John [1240] concerning the dispute between them about a certain obstruction of a certain water caused by the said Philip in Thorpe to the damage of the port of the said Hawise in Wainfleet, viz. that since it was then clear that the land on each side of the said watercourse to the port of Wainfleet belongs to the said Philip, the lordship of that ditch where the water runs is to remain to the said Philip and his heirs in this manner, viz. that the course of the water to the port of Wainfleet ought to be open and without obstruction of any kind every year from Michaelmas to the following Easter, and from Easter day for the following three weeks the said Philip and his heirs every

year may and ought by this agreement to stop up the course of the water so as to refresh the ditches of his manor of Croft and to water his cattle. And immediately the three weeks have ended the said Philip and his heirs shall completely remove the obstruction of the water so that for the next three weeks the said Hawise and her heirs may have the course of the water completely open to her port of Wainfleet. And thus every year between Easter and Michaelmas the course of the said water is to be obstructed for three weeks and is to be open for the following three weeks. And immediately after Michaelmas every year the said Philip and his heirs are to open the said watercourse and it shall remain open every year until the following Easter as is written above. This agreement was enrolled in the rolls of Robert de Lexington, Jollan de Nevill, Robert de la Haye and Warner Engayne, justices of the lord king then itinerant at Lincoln. . ."

Later records underline the importance of the provision for watering stock: at the same time they point to some modification of the original terms. Thus a sewers jury of 1432 said the clough at the head of the Little Lymn was to be open only in the drought of summer (*cloca solum sit aperta in siccitate estatis*), when the lord of Croft ought to receive fresh water (*aquas recentes*) for his beasts and those of his tenants in Croft and Thorpe for the purpose of watering and refreshing (*ad aquandum et refrigerandum*).³ In 1501 the arrangement was said to be "only for great need, that is to say, for the refreshing of the lord of Croft and his tenants in great dry summers." An inquisition of 1525 said that the "gauge" (sluice gate) ought not to be drawn by anyone "but only for the lord of Croft and his tenants, and yet

¹ That Philip (or his predecessor as lord of Croft) had been a party to the original diversion is implicit in the agreement, which mentions that the new channel and the land on each side belonged to him, *i.e.* it had been cut across his land.

² For the Latin text see Appendix to this article.

³ For the text of the sewers presentments and inquisitions of 1432, 1501, 1525, and 1563 quoted here I have drawn upon a collection of copies of documents relating to the Little Lymn made in the late sixteenth century and found by my wife some years ago among documents deposited with the Lindsey County Council. I am indebted to Mrs E. H. Rudkin for the loan of a transcript of this made by Miss F. E. Thurlby.

not they but when they lack water for refreshing of their beasts and cattle in dry summers"; the water from the "high country" should rightfully issue into Wainfleet Haven "for keeping of a good channel in the said haven to the sea." In 1634 it was asserted that the Little Lymn was "formerly purchased by the lord of Croft for the serving his manor of Croft with water, and which he hath since that time conveyed to the freeholders and owners within . . . Croft for their benefit."¹ In 1774 John Grundy, the Spalding engineer, reported on the "present drowned state and condition" of the East Fen and adjacent grounds, with proposals for their drainage. In the course of this report he describes the state of the Lymn and Little Lymn, and says: "Firsby Clow, which is set across Steepings River, is 15 feet 3 inches wide, and has a draw door, which in dry seasons is every other three weeks shut down to throw the river waters into the [Little] Lymn, through a draw-gate sluice of 22 inches wide, for watering the low grounds in Firsby, Irby, Braytoft, Croft, and Thorpe."²

It will be seen from these quotations that while the agreement continued to be observed in principle for over five centuries, in one important particular it had already been modified by 1432. Whenever its provisions are invoked, the requirement that the sluice into the Little Lymn should be opened from Easter to Michaelmas *every year* (*et ita singulis annis*) is never mentioned. Instead we find phrases such as: "only in the drought of summer", "only for great need . . . in great dry sum-

mers", "only . . . when they lack water . . . in dry summers", "if need shall require in the time of drought." No such saving clause appears in the agreement of 1240. An understanding to this effect might, perhaps, have existed from the beginning; but this seems unlikely and is scarcely capable of proof.³ Two possible explanations suggest themselves for the relaxation of the original terms. The more probable one is that the "commercial interest" of Wainfleet had once more prevailed. Silting of the haven certainly increased in the course of time, and Wainfleet came to depend on the Lymn waters for its very survival as a port.⁴ The agreement, we may suppose, came then to be regarded as a remedy to which the lord of Croft and his tenants might have recourse in emergency but which was at other times ignored. This would have mattered the less when the river was frequently being diverted into its old channel, whether by wilful breaking or opening of the sluice or by the obstruction of its proper channel through silting or some other cause; there were times when the Little Lymn received in this way more water than it could contain. It is noteworthy that from 1432 onwards no sign has been found of any demand from Croft for the agreement to be enforced in its original rigour.

There may, however, be another explanation: a change in the climate. The twelfth and thirteenth centuries, especially from about 1150 to 1250, were a period of intense activity in the reclamation of marsh and fen in Lincolnshire and elsewhere.⁵ This seems to have

¹ Lincs. Archives Office, Alford and Spilsby Courts of Sewers minute book 1626-44, court held at Burgh, 7 June 1634.

² John Grundy, *Observations . . . made on the East Fen, the low Grounds and Fens adjoining thereto . . . with a Report of the Causes of their present drowned State and Condition: also Schemes for the Drainage thereof*. . . , 1774, p. 2.

³ An inquisition of 1563 said the sluice was to be "kept open three weeks and sparred three weeks yearly between Black Monday (*i.e.* Easter Monday) and Michaelmas *according to the old custom* for Croft *if need shall require* in the time of drought." The phrases I have italicized *may* imply such an understanding, but are probably no more than a chance form of words.

⁴ In the 1670's the Lymn was explicitly stated to be "the chiefest and often in summer time the only support of Wainfleet Haven one of His Majesty's ports"; this was because the Good Dike which brought the water from the East Fen to the head of the haven at White Cross Clough was "commonly dry" in summer. Lincs. Archives Office, M.M. VI/7/9/46 and 48.

⁵ H. E. Hallam, *The New Lands of Elloe*, University of Leicester, Dept. of English Local History, Occasional Papers no. 6, 1954 (reclamation in the wapentake of Elloe); Dorothy M. Owen, 'Some Revesby

been prompted by economic causes; but the rapid progress and undoubted success of this "forward movement" must surely have owed not a little to favourable climatic conditions. There is certainly evidence for a period of relatively dry and warm weather in the early thirteenth century,¹ and this might have made the annual "refreshing" of the Little Lymn seem a necessity when the agreement of 1240 was drawn up. If in the following centuries wetter conditions became prevalent, a tacit abandonment of this arrangement, to be renewed only "if need shall require", would seem a natural development. Unfortunately the evidence is insufficient to make possible any definite conclusions. Much of the later Middle Ages was, indeed, marked by storms and flooding around the North Sea,² and there is some evidence of relatively wet conditions in Britain about the middle of the fifteenth century. The number of commissions of sewers covering East Lincolnshire, issued in the fourteenth and fifteenth centuries,³ might be taken to suggest increasing drainage difficulties. Professor Darby, on the other hand, inclines to attribute any deterioration of drainage as much to bad administration as to any change in natural conditions.⁴

It may be worth quoting in this connection from an account of the condition of the East Fen in 1501.⁵ The sewers jury, in whose presentment it occurs, had no doubt that the state of things which they found was due to neglect; but how far this was so, or whether natural causes were partly responsible, remains uncertain. The jury presented that (as

was always happening) "certain ill disposed persons unknown" repeatedly broke the Little Lymn sluice and so allowed the river to re-enter its old channel; in consequence, Wainfleet Haven had so far silted up that "sheep and other cattle may go over the haven bottom in divers places." But this was not the worst. For (said the jury) when the banks were well maintained and the water "kept in channel", there were within seven miles of Wainfleet eight thousand and more acres of good pasture "that now is but marris and mire and neither pasture nor good fishing as may be understood by old records of divers lords and gentlemen; and not only so great ground and profit lost but great charges yearly to keep it as it is now and yet issues but little but is like to grow to more yearly charge and more and less profit. . . The king's streets and common ways are drowned in divers places that was wont to be sufficient high ways for horse and cart to pass by with all manner of carriages to milne and market," so that people "know not the way from the dykes nor the dykes from the way as appears in divers townships"; the jury instanced places all round the East Fen from Sibsey and Stickney to Wainfleet and Friskney. The whole tone of the account (too long to quote in full), and in particular the calling in evidence of "old records" with no reference to the recollections of oldest inhabitants, seems to suggest that the 8,000 acres may not have been good pasture within living memory. If so, this would put the deterioration of the drainage well back towards the beginning of the fifteenth century. Other

Charters of the Soke of Bolingbroke', *Medieval Miscellany for D. M. Stenton*, Pipe Roll Soc., 1962, p. 223 *et seq.* (late twelfth-century assarts around the West Fen); Van Veen, *op. cit.*, sect. 8 (reclamations of William I, count of Holland (d. 1222), at the mouth of the Rhine).

¹ I am very grateful to Prof. Gordon Manley for reading this paper in draft and giving me the benefit of his knowledge of historical climatology: he is not, of course, responsible for the conclusions here drawn. On British climate in the Middle Ages see C. E. Britton, *A Meteorological Chronology to A.D. 1450*, Meteorological Office Geophysical Memoirs no. 70, 1937. This is based almost entirely on the statements of medieval chroniclers and annalists: evidence from record sources, such as that drawn from the account rolls of the bishopric of Winchester by J. Titow (*Economic History Review*, 2nd ser., XII, 1960, p. 360), might give a different impression.

² C. T. Smith in J. M. Lambert *et al.*, *The Making of the Broads*, Royal Geographical Soc., 1960, pp. 99-102 (flooding in the Norfolk Broads in the late thirteenth and fourteenth centuries); Van Veen, *op. cit.*, pp. 27-30 (the flood of 1421 in the Netherlands).

³ Dugdale, *op. cit.*, recites many of these.

⁴ H. C. Darby, *The Medieval Fenland*, 1940.

⁵ See p. 43, note 3.

records confirm that local conditions had become so bad that early in 1500 a major overhaul of drainage administration had to be put in hand as a matter of urgency.¹ Against this background it is scarcely surprising that the agreement on the Little Lymn should not have been observed to the letter—remarkable, rather, that it was observed at all.

APPENDIX

Hec² est concordia facta inter Hawisam de Quynce comitissam Linc' et Philippum de Kyma apud Linc' a die Pasce in tres septimanas anno regni regis Henrici filii regis Johannis xxiiij de contencione inter eos mota super quadam obstructione cuiusdam aque facta per predictum Philippum in Torp ad nocumentum portus predictae Hawis' in Weynflod videlicet quod quia tunc liquidum fuit quod terra utriusque partis illius cursus aque versus portum de Weynflod est predicti Philippi dominium illius fossati ubi aqua illa currit remanet predicto Philippo et heredibus suis in hunc modum videlicet quod cursus illius aque versus portum de Weynflod debet esse apertus et sine obstructione alicuius rei quolibet anno a festo sancti Michaelis usque ad Pasca proximum sequens Et a die Pasce per tres septimanas proximas subsequentes predictus Philippus et heredes sui quolibet anno bene possunt et debent per istam conventionem obstruere cursum illius aque ad

fossata manerii sui de Croft refrischeranda et ad averia sua adaquanda Et statim elapsis illis tribus septimanis predictus Philippus et heredes sui penitus amovebunt obstructionem illius aque Ita quod per alias tres septimanas proximas subsequentes predicta Hawis' et heredes sui possint habere cursum illius aque penitus apertum usque ad portum suum de Weynflod Et ita singulis annis inter Pasch' et festum sancti Michaelis proximum sequens per tres septimanas cursus dicte aque sit obstructus et per alias tres septimanas proximas subsequentes sit apertus Et statim post festum sancti Michaelis predictus Philippus et heredes sui singulis annis aperient predictum cursum aque et remanebit dictus cursus aque apertus singulis annis usque ad Pasca proximum sequens sicut prescriptum est. Ista convencio inrotulata fuit in rotulis Roberti de Lexsinton Jollani de Nevill Roberti de la Haye et Warneri Engayne iusticiariorum domini regis tunc itinerancium apud Linc'. In huius rei testimonium huic scripto in modum cyrograffi confecto predicti Hawis' et Philippus alternatim sigilla sua apposuerunt. Hiis testibus Normanno de Areyt Willelmo de Welle Wydone Wak Will-elmo de Beningworthe Johanne Gubaud Johanne de Criteleston Waltero Bec Henrico Camerario Thoma de Turribus Willelmo de Bilesby Ketelberno de Keles Henrico de Tointon et aliis.

¹ A. E. B. Owen, 'The Levy Book of the Sea: the Organization of the Lindsey Sea Defences in 1500', *Lincs. Archit. & Archaeol. Soc. Reports & Papers*, ix, 1961, p. 35 *et seq.* The immediate cause was a serious flood in the neighbourhood of Boston in the winter of 1499-1500, but the commissioners of sewers who acted in the matter had been appointed in 1497 (*Cal. Patent Rolls 1494-1509*, p. 90), so it is possible that this merely speeded a reorganization already in prospect.

² P.R.O. D.L. 36/2 no. 83. The original has been damaged, and the text has therefore been checked against an early fifteenth-century copy in D.L. 42/2 (Great Coucher Book of the Duchy of Lancaster), f.288, no. xxi. The "Little Lymn book" (note 3, page 43) has a late sixteenth-century copy with some inaccuracies. A survey of Croft manor made in 1576 contains a copy with the heading "Copy of the fine whereby the fresh water was first brought into the town of Croft".—Lincs. Archives Office, Monson 8/8.

Further Notes on Shepherds' Staves

By FRANCIS W. STEER

IN a paper entitled 'Some Notes on Shepherds' Staves', which Mr L. F. Salzman contributed to this REVIEW (v, 1957, pp. 91-4), he discussed the various types of staves from the formless club to the implement now generally recognized as a shepherd's crook. Consideration was given to the 'hockey-stick' type for which Mr Salzman quoted references in illustrations from c. 1150 to the early fifteenth century with a "stray" eighteenth-century ivory carving from Goa.

In 1825, John Flaxman (1755-1826) added to his fine marble groups at Petworth House in Sussex a superb Apollo—called by the sculptor the Apollo Lagobolos—who holds in his left hand a 'hockey-stick' type of staff. Thirty years later, in 1855, a lively and learned correspondence was being carried on between John Heywood Hawkins¹ of Bignor Park, Sussex, the Reverend Thomas Sockett, rector of Petworth from 1816 to 1859,² and a Frank Walter (whom I have not been able to identify) of Maidstone. The subject of their letters, the implement that Flaxman had put in Apollo's hand, is not without interest to students of agricultural history. Although only a few of the letters have found their way into the extensive archives at Petworth House, enough remains to enable us to follow the discussion.

The first letter, from Hawkins to Sockett, is dated from Bignor Park, 15 October 1855, and is as follows:

Dear Sir

Your question would have had a better chance of solution from me some quarter

of a century ago; but I will forthwith dust the tops of such authorities as my shelves may contain, and brace up my nerves for the round-mouthed Doric—

Your explanation is most plausible—I fear our herdsman, had he been living in these days, would have been acquainted with the interior of Petworth House of Correction—That cattle-lifting thief whom Flaxman has represented nearly stripped and with a hockey-stick in his hand, was in the habit, by all account, of lounging about with a flaming white wide-awake on his head, and a cross-bow (if not an air-gun) in his pocket. How many pheasants went into it, ancient history records not; but with such a stick in his hand, I should be sorry for any hare that crossed his path, even at thirty or forty yards. I believe this is a favourite method of poaching in some places; and I have seen it practised in the vicinity of Eton.

If I can give you no help from books, I can, when I go to Town, ascertain what Flaxman's notions were on the subject from his Sister, Miss Denman, and for what Theocritus meant,³ the Provost of Eton⁴ is the best living authority that I know. But I will try my own hand first—You and I, from our residence among the bold peasantry, have lights on these subjects perhaps hidden from Flaxman & Hawtreay.

Believe me,

Yours very faithfully,

J. HEYWOOD HAWKINS

Hawkins was true to his word and on 7 November 1855 sent Sockett another letter "in

¹ Son of John Hawkins of Trewithen, Cornwall, and Bignor Park. See F. W. Steer, *I am, my dear Sir* ... (1959) and *The Hawkins Papers* [in West Sussex Record Office]: *A Catalogue* (1962).

² See K. Povey, 'The Rise of Thomas Sockett', *Sussex County Magazine*, II, 1928, pp. 38-40.

³ See below, pp. 48, 49.

⁴ Edward Craven Hawtreay (1789-1862), provost of Eton from 1853 until his death. See *D.N.B.*

reply to your question about the habits and manners of the pastoral Apollo." Before dealing with this however, we must turn to an undated note¹ by Sockett in which he says: "The Sculptor gave the epithet *Lagobolos* to this figure, from the *lagobolon*, which he is represented as bearing in his left hand.

"This weapon (a sort of bent club, which shepherds and herdsmen were accustomed to carry) bears some analogy both in its shape, and the uses to which it was applied, to the Boomerang,² used by the Aborigines of Australia, *for purposes of the chase, and also in war, and was a formidable instrument of offence, in well practiced hands—the word is derived from *λαγώς* a hare & *βάλλω* to throw at—*³

"In the 4th Idyll of Theocritus, a herdsman is introduced, as complaining of a heiffer, who, notwithstanding his continued efforts to drive her away, perseveres in browsing upon the tender shoots of an olive, & at length he exclaims [*here Sockett quotes the Greek, but I give a translation by Fawkes⁴ of line 49 of the Idyll quoted by Sockett*—

Oh that I had my pike
I'd give the beast a blow she would not like."

Sockett says that *pike* does not appear to be a good translation of *λαγωβόλον* and goes on, "It appears to me that they used to throw (or spin so as to give it a rotatory motion) the *λαγωβόλον* horizontally, and thus to strike the legs of the hare (as it ran along) from under it."

Now to return to Hawkins's letter of November 7th. In it he quotes a translation of *λαγωβόλον* as *pedum quo lepores fugientes petuntur* and refers to the definition in Liddell and Scott's Greek Lexicon: "a staff or stick

for flinging at hares, also used as a shepherd's staff or crook, Lat. *pedum*."⁵

He then proceeds to cite the description of a herdsman in Theocritus, Idyll VII, which, in translation,⁶ is: "an old cloak was fastened by a broad belt about his breast; whilst in his right hand he held a crooked club of wild-olive." The Greek words in this passage are *ροικός*—crooked and *κορύνη* meaning (i) a club, often shod with iron for fighting, and (ii) a shepherd's staff. Later, in the same Idyll: "and he . . . presented me with his crook to be a friendly gift . . .", but here the Greek word is *λαγωβόλον*.

Hawkins continues to give proof of his further inquiries but this need not detain us. Between the dates of the two letters from Hawkins, Sockett received a long one from Frank Walter, dated from Maidstone, 26 October 1855, which gives some additional references. Among them is William Smith's edition of *A Dictionary of Greek and Roman Antiquities* (1842) where there is an article on the word *pedum*, synonymous with *κορύνη* and *λαγωβόλος*, but the author says that the curved extremity of this crook "was used by shepherds to lay hold of the sheep or goats, principally by their legs, so as to preserve them from running into danger or to rescue them when they were in want of assistance." The article is illustrated by a woodcut from a painting found at Civita Vecchia: it shows the 'hockey-stick', head downwards, in the hand of a shepherdess, who sits on a rock, tending sheep and other cattle. The implement she holds, says Walter, "is exactly like the one Flaxman has placed in the hand of his statue, and might very well have served for his model." The article in Smith continues: "The herdsman also used a crook, but less curved, with a heavy head, and hence

¹ There are two almost identical copies.

² The original spelling and punctuation in all the documents here transcribed have been preserved as far as is reasonably possible.

³ The words between the asterisks are omitted in the other version of the notes and the words "and to have been thrown at hares or other animals" substituted.

⁴ Francis Fawkes (1720–177) translated Theocritus, 1767.

⁵ I have confirmed this in the 1869 edition of Liddell and Scott.

⁶ *The Idylls of Theocritus* . . . by J. Banks (Bohn's Classical Library, 1853), p. 38.

⁷ Banks, *op. cit.*, p. 44.

called *καλαῦρος*:¹ he threw it at any of the herd which strayed from the rest."

It seems that *κορύνη* and *λαγωβόλον*, at least in their original acceptance, signified something that was thrown, and belonged more properly to the shepherd than to the herdsman, although Walter, perhaps wrongly in the light of Hawkins's second letter, suggests "that the term *λαγωβόλον* came in a great measure to lose its original signification, and that as Apollo was especially the God of Shepherds and was himself once a shepherd or herdsman, he carries it rather for the purpose of controlling unruly cattle, than for cutting over unfortunate hares, as the passage in Theocritus seems to show." Walter also refers to the *καλαῦρος* and says that Polupætēs, who threw the discus far beyond all other competitors at the funeral games in honour of Patroclus, is compared to a herdsman throwing his *καλαῦρος* among his cattle.² Paley, in his notes to this passage in the *Iliad* says: "*καλαῦροπα*, a herdsman's crook. This seems to have been used as a missile for driving cattle." He then quotes the passage from Theocritus, iv. 49, with the translation, "I only wish my staff had a crook to it, for then I would strike you!"³ Paley continues, in parentheses, to say that the *straight* stick, *λαγωβόλον*, was used for killing hares, etc.; but offers the view that *καλαῦρος* may not be an ancient word.

We are left, as so often happens when a *precise* definition is wanted, with differing opinions, but the evidence seems to indicate that the 'hockey-stick' as so finely carved by Flaxman in Apollo's hand, as defined by Hawkins and by Liddell and Scott, and as shown in an early thirteenth-century painting of shepherds in the Sussex Downland church of Cocking, was part of a shepherd's equipment and, perhaps, in a slightly different form, an implement used by other herdsman. In addition to the Cocking representation (and what better proof could one have for the English use?) which Mr Salzman mentioned among many others, we must accept the essentially practical observation made by Hawkins that "from our residence amongst the bold peasantry, [we] have lights on these subjects perhaps hidden from Flaxman & Hawtrey." He could well have included some of the learned commentators whose opinions I have given. There is also some evidence to support the theory that the 'long straight staff with an iron spud at one end', described by Mr Salzman (his types C 1-3 on p. 92), derived from the *κορύνη*.

It was typical of Sockett's generation to inquire into such problems merely for amusement; the writers little thought that their letters would arouse interest among historians over a century later.

¹ Liddell and Scott define this word as a shepherd's staff or crook, which was thrown so as to drive back the cattle to the herd.

² F. A. Paley, *The Iliad of Homer*, II, 1871, xxiii, 844-7.

³ Cf. Banks's version quoted on p. 48.

List of Books and Articles on Agrarian History issued since September 1963¹

Compiled by JOAN THIRSK

BOOKS AND PAMPHLETS

- ALCOCK, L. *Dinas Powys: an Iron Age, Dark Age, and Early Medieval Settlement in Glamorgan*. Wales U.P. 1963.
- AVERY, D. *Manorial Systems in the Edmonton Hundred in the late Medieval and Tudor Periods*. Edmonton Hundred Hist. Soc., Edmonton Central Reference Library, London, N.9.
- BABER, A. F. C. *The Court Rolls of the Manor of Bromsgrove and King's Norton, 1494-1504. A Calendar*. Worcs. Hist. Soc. 1963.
- BARNES, PATRICIA M. (ed.). *Chertsey Abbey Cartularies, vol. II, part 2*. Surrey Rec. Soc., vol. XII concluded. 1963.
- BERESFORD, M. W. *Lay Subsidies and Poll Taxes*. Phillimore. 1963.
- BRINKWORTH, E. R. C. (ed.). *South Newington Churchwardens' Accounts, 1553-1684*. Banbury Hist. Soc., vol. VI.
- CANNON, G. G. *Great Men of Modern Agriculture*. Macmillan.
- CARTER, H. B. *His Majesty's Spanish Flock*. Angus & Robertson.
- CHADWICK, NORA K. *Celtic Britain*. Thames & Hudson.
- CHAMBERS, J. D. *Laxton: the Last English Open Field Village*. H.M.S.O.
- CLOUGH, MARIE. *The Book of Bartholomew Bolney*. Sussex Rec. Soc., vol. LXIII.
- COOLMAN, F., and VAN DER POEL, J. M. G. *Van Gareel tot Aftakas*. Publication no. 78, Instituut voor Landbouwtechniek en Rationalisatie, Wageningen.
- COPPOCK, J. T. *An Agricultural Atlas of England and Wales*. Faber. 1963.
- CORBETT, ELSIE. *A History of Spelsbury, including Dean, Taston, Fulwell, and Ditchley*. Cheney & Sons, Banbury. 1962.
- COX, J. S. *The Peasantry of Dorsetshire*. Toucan Press, Beaminster. 1963.
- DICKINSON, R. *The Registers of the Parish Church of Dalton-in-Furness, part 1: 1565-1620*. Lancs. Parish Register Soc., Publications no. 100.
- DOVRING, F. *Land and Labour in Europe, 1900-50*. Martinus Nijhoff, The Hague. 1960.
- EDWARDS, A. C. *A History of Essex*. Darwen Finlayson. 1963.
- EMMISON, F. G. *Catalogue of Maps in the Essex Record Office, Second Supplement*. Essex County Record Office.
- ESSEX COUNTY RECORD OFFICE. *Victorian Essex*. Essex Record Office Publications, no. 40.
- FULLER, MARGARET. *West Country Friendly Societies: an Account of Village Benefit Clubs and their Brass Pole Heads*. Reading University, Museum of English Rural Life.
- GODBER, JOYCE. *The Cartulary of Newnham Priory, Parts 1 and 2*. Beds. Hist. Rec. Soc., vol. XLIII, Parts 1 and 2. 1963, 1964.
- GREEN, G. H. and M. W. *Loughborough Markets and Fairs*. G. H. Green, 33 Queens Road, Loughborough.
- HANDLEY, J. E. *The Agricultural Revolution in Scotland*. Burns, Glasgow. 1963.

¹ The date of publication is 1964 unless otherwise stated. The compiler wishes to thank Mr George Green for help with this bibliography.

- HANSON, L. W. *Contemporary Printed Sources for British and Irish Economic History, 1701-50*. C.U.P. 1963.
- HIGGS, J. *The Land*. Studio Vista.
- HIGHFIELD, J. R. L. (ed.). *The Early Rolls of Merton College, Oxford*. Oxford Hist. Soc., N.S., vol. XVIII.
- HILTON, J. A. *Nettlestead: a Village History*. J. A. Hilton, 19 Lonewood Way, Hadlow, Kent.
- HILTON, J. A. *Shipbourne: a Village History*. J. A. Hilton, 19 Lonewood Way, Hadlow, Kent.
- HILTON, J. A. *Wateringbury: a Village History*. J. A. Hilton, 19 Lonewood Way, Hadlow, Kent.
- HOLLAND, D. *Bawtry and the Idle River Trade*. Doncaster Museum Publications, vol. XXXI.
- HOLT, N. R. (ed.). *The Pipe Roll of the Bishopric of Winchester, 1210-11*. Manchester U.P.
- JONES, E. L. *Seasons and Prices. The Rôle of the Weather in English Agricultural History*. Allen & Unwin.
- LEE, J. M., and MCKINLEY, R. A. *Victoria County History of Leicestershire, vol. V: Gartree Hundred*. O.U.P. for Inst. Hist. Res.
- LEVETT, A. E. *Studies in Manorial History* [First edition reprinted]. O.U.P. & Merlin Press. 1963.
- LOBEL, MARY D. *Victoria County History of Oxfordshire, vol. VIII: Lewknor and Pyrton Hundreds*. O.U.P. for Inst. Hist. Res.
- MANN, M. D. *The Roman Villa at Woodchester, Gloucestershire*. Woodchester Rectory, Stroud, Glos. 1963.
- MARTIN, E. W. *The Shearers and the Shorn*. Dartington Hall Studies in Rural Sociology.
- MASON, R. T. *Framed Buildings of the Weald*. R. T. Mason, 40 Covert Mead, Handcross, Sussex.
- MCKINLEY, R. A. See LEE, J. M.
- MERCER, W. B. *A Survey of the Agriculture of Cheshire*. Roy. Agric. Soc. England. 1963.
- MOIR, ESTHER. *The Discovery of Britain: the English Tourists, 1540-1840*. Routledge & Kegan Paul.
- MOURANT, A. E., and ZEUNER, F. E. *Man and Cattle: Proceedings of a Symposium on Domestication at the Royal Anthropological Institute, 24-26 May, 1960*. Roy. Anthr. Inst. Occasional Papers, no. 18. 1963.
- MUNBY, L. M. (ed.). *The History of King's Langley*. Langley W.E.A., Peter's Field, King's Langley. 1963.
- NORFOLK, W. R. *Gedling and Carlton: some Aspects of Local History*. Notts Co. Council Education Committee. 1963.
- ORWIN, C. S., and WHETHAM, EDITH H. *History of British Agriculture, 1846-1914*. Longmans.
- PARKER, J. O. *The Oxley Parker Papers: from the Letters and Diaries of an Essex Family of Land Agents in the Nineteenth Century*. Benham, Colchester.
- PREBBLE, J. *The Highland Clearances*. Secker & Warburg. 1963.
- PRYDE, G. S. *The Court Book of the Burgh of Kirkintilloch, 1658-94*. Scottish Hist. Soc. Publications, 3rd Ser., vol. LIII. 1963.
- REES, Sir JAMES F. *The Appeal of Local History in Pembrokeshire*. Pembrokeshire Local Hist. Soc., Panteg House, Salutation Square, Haverfordwest, Pems.
- RICHARDSON, H. *A History of Acomb, Yorks*. Yorks. Philosophical Soc., Yorkshire Museum. 1963.
- RUSSELL, Lord. *The Care of the Earth: a History of Husbandry*. Nelson, New York.
- RUSSELL, REX C. *The Enclosures of East Halton, 1801-4 and of North Kelsey, 1813-40*. W.E.A. North Lindsey Branch, 11 Priestgate, Barton-on-Humber, Lincs.
- SMITH, A. H. *The Place-Names of Gloucestershire*. English Place-Name Soc., vols. XXXVIII, XXXIX, XL.
- STOUT, H. B. *The Monumental Inscriptions of the Church and Churchyard of St James, Whitehaven, Cumberland*. Cumb. & Westm. Antiq. & Arch. Soc., Tract Ser., vol. XVI. 1963.
- TRACEY, M. *Agriculture in Western Europe: Crisis and Adaptation since 1880*. Cape.

- THOMAS, D. *Agriculture in Wales during the Napoleonic Wars: a Study in the Geographical Interpretation of Historical Sources*. Wales U.P. 1963.
- TIBBUTT, H. G. *The Letter Books of Sir Samuel Luke, 1644-5*. Beds. Hist. Rec. Soc., vol. XLII. 1963.
- TURNER, BARBARA C. *A History of Hampshire*. Darwen Finlayson. 1963.
- VAN DER POEL, J. M. G. See COOLMAN, F.
- WARD, W. R. *The Administration of the Window and Assessed Taxes, 1696-1798*. Phillimore. 1963.
- WHETHAM, EDITH H. See ORWIN, C. S.
- WOOD-JONES, R. B. *Traditional Domestic Architecture of the Banbury Region*. Manchester U.P. 1963.
- ZEUNER, F. E. See MOURANT, A. E.

ARTICLES

- ADDYMAN, P. V., SIMPSON, W. G., and SPRING, P. W. H. *Two Medieval Sites near Sedbergh, West Riding*. Yorks. Arch. Jnl, vol. XLI, i. 1963.
- ALCOCK, L. *Some Reflections on Early Welsh Society and Economy*. Welsh Hist. Rev., vol. II, i.
- ALCOCK, N. W. *Devonshire linhays [cow-houses]: a vernacular Tradition*. Trans. Devon. Ass., vol. XCV. 1963.
- ANON. *South-east Shropshire in 1086*. [Identification of places in Domesday Book.] Trans. Shropshire Arch. Soc., vol. LVII, ii.
- ANON. *Suffolk Enclosure Acts and Awards*. Suffolk Rev., vol. II, 6. 1963.
- ASHLEY, M. *Ordinary People in Stuart England*. History Today, vol. XIV, iii.
- ATKINSON, F. *'Knur and Spell' and Allied Games*. Folk Life, vol. I. 1963.
- ATTWOOD, E. A. *The Origins of State Support for British Agriculture*. Manchester School of Econ. and Soc. Studies, vol. XXXI. 1963.
- BAGOT, ANNETTE. *Mr. Gilpin and Manorial Customs*. Trans. Cumb. & Westm. Antiq. & Arch. Soc., vol. LXII. 1962.
- BAGOT, ANNETTE. See JONES, G. P.
- BAGSHAW, T. W. *The Passing of the Country Baker*, parts 1, 2. Beds. Mag., vol. IX, nos. 68, 69.
- BAKER, A. R. H. *Open Fields and Partible Inheritance on a Kent Manor*. Econ. Hist. Rev., vol. XVII.
- BAKER, A. R. H. *Open Fields in Derbyshire: some Reservations about Recent Arguments*. Derbyshire Arch. Jnl, vol. LXXXIII. 1963.
- BAKER, A. R. H. *The Field System of an East Kent Parish (Deal)*. Arch. Cant., vol. LXXVIII.
- BAKER, P. H. J., and WAILES, R. *The Windmills of Derbyshire, Leicestershire and Nottinghamshire: Part I. Post Mills; Part II. Tower Mills*. Trans. Newcomen Soc., vols. XXXIII, XXXIV. 1962, 1963.
- BAKER-JONES, D. L. *The Social Life of Carmarthenshire during the Eighteenth Century*. Trans. Hon. Soc. Cymmrodorion, Session 1963, part II. 1963.
- BARNES G. *Early English Settlement and Society in Cheshire from the Evidence of Place-Names*. Lancs. & Cheshire Antiq. Soc., vol. LXXI. 1963.
- BARTRUM, P. C. *Pedigrees of the Welsh Tribal Patriarchs*. Nat. Lib. Wales Jnl, vol. XIII, 2. 1963.
- BEAVINGTON, F. *The Change to More Extensive Methods in Market Gardening in Bedfordshire*. Trans. Inst. British Geographers, vol. XXXIII. 1963.
- BERESFORD, M. W. *Dispersed and Group Settlement in Medieval Cornwall*. Agric. Hist. Rev., vol. XII, i.
- BERESFORD, M. *The Unprinted Census Returns of 1841, 1851, 1861 for England and Wales*. Amateur Historian, vol. V, 8. 1963.
- BIRRELL, JEAN R. *The Forest Economy of the Honour of Tutbury in the Fourteenth and Fifteenth Centuries*. Univ. of Birmingham Hist. Jnl, vol. VIII. 1962.
- BLACKMAN, JANET. *The Food Supply of an Industrial Town*. Business History, vol. V, 2. 1963.

- BLAUG, M. *Economic Theory and Economic History in Great Britain, 1650-1776*. Past & Present, no. 28.
- BLAUG, M. *The Poor Law Re-examined*. Jnl Econ. Hist., vol. XXIV, 2.
- BLENCH, B. J. R. *Trinity Manor Farm in the Early Nineteenth Century*. Société Jersiaise Annual Bull., vol. XVIII, 4.
- BLOUNT, W. P. *Story of a Distributor—Christopher Hill, Ltd.* Land, vol. xv. 1963.
- BLOUNT, W. P. *William Cobbett, Countryman*. Land, vol. xv. 1963.
- BLOXHAM, R. N. *On Some Minor Place-Names in Ockham and Wisley*. Surrey Arch. Coll., vol. LX. 1963.
- BOUMPHREY, R. S. *The Rhodes Family, of Horbury, Co. York*. Yorks. Arch. Jnl, vol. XLI, i. 1963.
- BRIDGEWATER, N. P. *The Huntsham Romano-British Villa. First Report*. Trans. Woolhope Naturalists' Field Club, vol. XXXVII, ii. 1963.
- BROWN, R. D. *Devonians and New England Settlement before 1650*. Trans. Devon. Ass., vol. XCV. 1963.
- BUCHANAN, R. H. *Geography and Folk Life*. Folk Life, vol. i. 1963.
- BUCK, ANNE. *The Countryman's Smock*. Folk Life, vol. i. 1963.
- BURNETT, J. *Plenty and Want: the Social History of English Diet*. History Today, vol. XIV, iv.
- BURNETT, J. *The Baking Industry in the Nineteenth Century*. Business History, vol. v, 2. 1963.
- BUTLER, L. A. S. *The Excavation of a Long Hut near Bwlch yr Hendre*. Ceredigion, vol. IV, 4. 1963.
- BUTLIN, R. A. *Northumberland Field Systems*. Agric. Hist. Rev., vol. XII.
- CAIRD, J. B. *The Making of the Scottish Rural Landscape*. Scottish Geogr. Mag., vol. LXXX, 2.
- CAMPBELL, J. L. *The Contribution of Edward Lhuyd to the Study of Scottish Gaelic*. Trans. Hon. Soc. Cymmrodorion, Session 1962. 1962.
- CANTOR, L. M., and WILSON, J. D. *The Medieval Deer Parks of Dorset: III*. Proc. Dorset Nat. Hist. & Arch. Soc., vol. LXXXV.
- CARRÉ, M. H. *Lyson's Greater London*. History Today, vol. XIV, ix.
- CARTER, P. W. *Edward Lhuyd the Scientist*. Trans. Hon. Soc. Cymmrodorion, Session 1962. 1962.
- CHALKLIN, C. W. See HANLEY, H. A.
- CHALLEN, W. H. *Crypt Farm, Cocking*. Sussex N. & Q., vol. XV, 2. 1963.
- CHAMBERS, BETTY. M. *J. Armstrong in Norfolk: Progress of an Eighteenth-Century Survey*. Geogr. Jnl, vol. CXXX, 3.
- CHAPLIN, R. E., and COY, JENNIE P. *Report on the Animal Bones at The Rumps, St. Minver*. Cornish Archaeology, no. 3.
- CHATWIN, P. *Long Itchington*. Trans. & Proc. Birmingham Arch. Soc., vol. LXXIX.
- CHECKLAND, S. G. *Scottish Economic History: Recent Work*. Economica, N.S., vol. XXXI.
- CIPOLLA, C., LOPEZ, R. S., and MISKIMIN, H. A. *Economic Depression of the Renaissance?* Econ. Hist. Rev., vol. XVI.
- CLIVE, J. *British History, 1870-1914 Reconsidered: Recent Trends in the Historiography of the Period*. Amer. Hist. Rev., vol. LXVIII. 1963.
- COLVIN, H. M. *A List of the Archbishop of Canterbury's Tenants by Knight-Service in the Reign of Hen. II*. Kent. Arch. Soc. Records Publications, vol. XVIII.
- COATES, B. E. *The Work of Richard Woods, Landscape Gardener in the West Riding of Yorkshire*. Trans. Hunter Arch. Soc., vol. VIII, 5. 1963.
- COPELAND, G. W. *Devonshire Church-houses, part IV*. Trans. Devon Ass., vol. XCV. 1963.
- COPPOCK, D. J. *Mr. Saville on the Great Depression: A Reply*. Manchester School of Econ. and Soc. Studies, vol. XXXI. 1963.
- COPPOCK, J. T. *Agricultural Changes in Britain*. Geography, vol. XLIX, 3.
- COPPOCK, J. T. *Britain's Woodlands and Afforestation*. Geography, vol. XLIX, 3.
- CORNWALL, J. *The People of Rutland in 1522*. Trans. Leics. Arch. & Hist. Soc., vol. XXXVII. 1963.
- COSIER, D. *The Manor of Moundsmere*. Proc. Hants. Field Club, vol. XXII, ii. 1962.

- COUTANCHE, Lord. *A Glance at the Past Ninety Years*. Société Jersiaise Annual Bull., vol. XVIII, 4.
- COWLEY, J. W. *Farm and Village at the Beginning of the Twentieth Century*. Proc. Isle of Man Nat. Hist. & Antiq. Soc., vol. VI, 2. 1961.
- COWPER, R. A. S. See HARBOTTLE, BARBARA.
- COY, JENNIE P. See CHAPLIN, R. E.
- CRAKE, K. M. *The 1777 Division of Enfield Chase*. Edmonton Hundred Hist. Soc. Occ. Papers, n.s., no. 2.
- CRELLIN, J. C. *Ballachurry, Kirk Andreas*. Proc. Isle of Man Nat. Hist. & Antiq. Soc., vol. VI, 2. 1961.
- DEAN-SMITH, MARGARET. *Disguise in English Folk-Drama*. Folk Life, vol. I. 1963.
- DE GARIS, MARIE. *A Brehaut Family some Four Hundred Years Ago*. La Société Guernesiaise Rep. and Trans., vol. XVII, iii. 1963.
- DETSICAS, A. P. *Excavations at Eccles, 1962*. Arch. Cant., vol. LXXVIII.
- DODWELL, BARBARA. *The Honour of the Bishop of Thetford, Norwich, in the late eleventh and early twelfth centuries*. Norfolk Archaeology, vol. XXXIII, ii. 1963.
- DONKIN, R. A. *The Cistercian Order in Medieval England: Some Conclusions*. Trans. Inst. British Geographers, vol. XXXIII. 1963.
- DU BOULAY, F. R. H. *Calendar of Archbishopric Demesne Leases, 1503-32*. Kent Arch. Soc. Rec. Publications, vol. XVII.
- DU BOULAY, F. R. H. *The Pipe Roll Account of the See of Canterbury during the vacancy after the death of Archbishop Pecham, 1292-5*. Kent. Arch. Soc. Rec. Publications, vol. XVIII.
- DU BOULAY, F. R. H. *A Rentier Economy in the later Middle Ages: the Archbishopric of Canterbury*. Econ. Hist. Rev., vol. XVI.
- DUDLEY, DOROTHY, and MINTER, E. MARIE. *The Medieval Village at Garrow Tor, Bodmin Moor, Cornwall*. Medieval Archaeology, vols. VI-VII.
- DUNBABIN, J. P. D. *The "Revolt of the Field": the Agricultural Labourers' Movement in the 1870's*. Past & Present, no. 26. 1963.
- DUNCAN, R. *Case Studies in Emigration: Cornwall, Gloucestershire, and New South Wales, 1877-1886*. Econ. Hist. Rev., vol. XVI. 1963.
- DUNNING, G. R. *The Muniments of Syon Abbey: their Administration, and Migration in the Fifteenth and Sixteenth Centuries*. Bull. Inst. Hist. Res., vol. XXXVII, no. 95.
- ELVEY, G. R. *Mediaeval Charters at Claydon House*. Records of Bucks., vol. XVII, iii. 1963.
- EVERITT, A. *The Community of Kent in 1640*. Genealogist's Mag., vol. XIV, 8. 1963.
- EVERITT, A. *The Study of Local History*. Amateur Historian, vol. VI, 2.
- EWEN, A. H. *Origins and Early Development of Agriculture in Guernsey*. La Société Guernesiaise Rep. & Trans., vol. XVII, iii. 1963.
- FAIRHURST, H. *The Surveys for the Sutherland Clearances of 1813-1820*. Scottish Studies, vol. VIII, i.
- FALLA, E. M., PRIAULX, T. F., SHEPPARD, J. C., and JACKSON, F. *Guernsey Mills: a Symposium*. Société Guernesiaise Rep. & Trans., vol. XVII, iii. 1963.
- FENTON, A. *The Chilcarroch Plough*. Scottish Studies, vol. VIII, i.
- FLETCHER, J. M. *Radiocarbon Dating of Cruck Cottages*. Trans. Newbury District Field Club, vol. XI, 2. 1963.
- FOWLER, P. J. *A Native Homestead of the Roman Period at Porth Godrevy, Gwithian*. Cornish Archaeology, no. 1. 1962.
- FOWLER, P. J., and THOMAS, A. C. *Arable Fields of the Pre-Norman Period at Gwithian*. Cornish Archaeology, no. 1. 1962.
- FRENCH, H. *Field Names in Widecombe-in-the-Moor*. Trans. Devon Ass., vol. XCV. 1963.
- FRENCH, H., and LINEHAM, C. D. *Abandoned Medieval Sites in Widecombe-in-the-Moor*. Trans. Devon Ass., vol. XCV. 1963.
- FUSSELL, G. E. *The Grasses and Grassland Cultivation of Britain: I. Before 1700; II. 1700-1900*. Jnl British Grassland Soc., vol. XIX, 1, 2.
- FUSSELL, G. E. *Rural Reading in old-time England*. Library Rev., vol. XIX, 6.

- FUSSELL, G. E. *The Suffolk Farm Machinery Industry*. Suffolk Rev., vol. II, 7.
- GAILEY, R. A. *Agrarian Improvement and the Development of Enclosure in the South-west Highlands of Scotland*. Scottish Hist. Rev., vol. XLII, no. 134. 1963.
- GARNETT, R. G. *A Housing Association for New Lanark*. Amateur Historian, vol. VI, 4.
- GELLING, P. S. *Medieval Sheilings in the Isle of Man*. Medieval Archaeology, vols. VI-VII.
- GILBERT, R. *The 1840 Reconstruction of Exceat Causeway*. Sussex N. & Q., vol. XV, 2. 1963.
- GIRARD, P. J. *Inventory of the Contents of a Farm and Farmhouse at Le Tertre, Castel, 1770*. Société Guernesiaise Rep. & Trans., vol. XVII, iii. 1963.
- GLASSCOCK, R. E. *The Distribution of Wealth in East Anglia in the early Fourteenth Century*. Trans. Inst. British Geographers, vol. XXXII. 1963.
- GLEDHILL, B. *Birchcliffe Water, Hebden Bridge*. Halifax Antiq. Soc. 1962.
- GLEDHILL, B. *Cockcrofts of Mayroyd*. Halifax Antiq. Soc. 1962.
- GOULD, J. D. Y. S. *Brenner on Prices: a Comment*. Econ. Hist. Rev., vol. XVI. 1963.
- GRANT, JENNIFER. *The Gentry of London in the Reign of Charles I. (Thesis Summary)*. Univ. Birmingham Hist. Jnl, vol. VIII. 1962.
- GRAY, I. E. *Local Archives of Great Britain: XXV. The Gloucestershire Records Office*. Archives, vol. VI, no. 31.
- GREGORY, Mother MARY. *Wickham Court and the Heydons*. Arch. Cant., vol. LXXVIII.
- GREEN, C. *Excavations on a Medieval Site at Water Newton in the County of Huntingdon in 1958*. Proc. Cambridge Antiq. Soc., vols. LVI and LVII.
- GRIFFITHS, R. *Gruffydd ap Nicholas and the Rise of the House of Dinefwr*. Nat. Lib. Wales Jnl, vol. XIII, 3.
- GRIFFITHS, W. A. *Some Extracts from the 1841 and 1851 Census Returns for the Meifod District*. Montgomeryshire Coll., vol. LVII. ii. 1963.
- HALL, D. *Evidence of Fraud at Mediaeval Drayton? Northants. Past and Present*, vol. III, 4. 1963.
- HALLAM, H. *The Fen Bylaws of Spalding and Pinchbeck*. Lincs. Archit. & Arch. Soc., vol. X, I. 1963.
- HALLAM, H. E. *Further Observations on the Spalding Serf Lists*. Econ. Hist. Rev., vol. XVI. 1963.
- HAMMOND, R. J. *British Wartime Food Control: Some Addenda to an official History*. Food Research Institute Studies [Stanford University], no. 3. 1962.
- HANLEY, H. A., and CHALKLIN, C. W. *The Kent Lay Subsidy Roll of 1334-5*. Kent Arch. Soc. Rec. Publications, vol. XVIII.
- HARBOTTLE, BARBARA, and COWPER, R. A. S. *An Excavation [of a long house] at Memmerkirk, Northumberland*. Arch. Aeliana, vol. XLI. 1963.
- HARLEY, J. B. *A Guide to Ordnance Survey Maps as Historical Sources. IV: The Town Plans and Small-Scale Maps of England and Wales*. Amateur Historian, vol. V, 8. 1963.
- HARRISON, J. V. *Kirkhaugh Wills—Part II*. Arch. Aeliana, vol. XLI. 1963.
- HARVEY, BESSIE. *Youthful Memories of my Life in a Suffolk Village*. Suffolk Rev., vol. II, 6. 1963.
- HARVEY, D. W. *Locational Change in the Kentish Hop Industry and the Analysis of Land Use Patterns*. Trans. Inst. British Geographers, vol. XXXIII. 1963.
- HARWOOD, H. W. *Lacey Hey, Midgley*. Halifax Antiq. Soc., 1962.
- HECTOR, L. C. *Guide to the Contents of the Public Record Office*. Amateur Historian, vol. VI, 2.
- HIGGS, E. S., and WHITE, J. P. *Autumn Killing [of stock]*. Antiquity, vol. XXXVII. 1963.
- HILLS, R. L. *Drainage by Windmills in the Waterbeach Level*. Proc. Cambridge Antiq. Soc., vols. LVI and LVII.
- HOGG, A. H. A. *List of Hill-forts in Cardiganshire*. Bull. Board Celtic Studies, vol. XIX, iv. 1962.
- HOLDEN, E. W. *Excavations at the Deserted Medieval Village of Hangleton, part 1*. Sussex Arch. Coll., vol. CI. 1963.

- HORTON, DOROTHY. *The Hortons of Leicestershire*. *Genealogist's Mag.*, vol. XIV, 9.
- HOSKINS, W. G. *Harvest Fluctuations and English Economic History, 1480-1619*. *Agric. Hist. Rev.*, vol. XII, i.
- HOWELL, R. *Short Guides to Records: 7. Hearth Tax Returns*. *History*, vol. XLIX.
- HURST, J. G. *White Castle and the Dating of Medieval Pottery*. *Medieval Archaeology*, vols. VI-VII.
- JACKSON, F. See FALLA, E. M.
- JACOB, I. H. *Later Legal Records and the Historian*. *Archives*, vol. VI, 31.
- JACOB, K. A. *Trade Tokens and Local History*. *Amateur Historian*, vol. VI, 2.
- JENKINS, J. G. *Bowl Turners and Spoon Carvers*. *Folk Life*, vol. I, 1963.
- JOBES, G. *Excavation of a Native Settlement at Marden, Tynemouth*. *Arch. Aeliana*, vol. XLI, 1963.
- JOHNSON, J. H. *Agriculture in County Derry at the Beginning of the Nineteenth Century*. *Studia Hibernica*, vol. IV.
- JOHNSON, J. H. *Der Bevölkerungswandel Irlands im 19. und 20. Jahrhundert*. *Geographische Rundschau*, vol. XVI, no. 6.
- JOHNSON, J. H. *The Disappearance of Clachans from County Derry in the Nineteenth Century*. *Irish Geography*, vol. IV, no. 6, 1963.
- JOHNSON, J. H. *Partnership and Clachans in mid-nineteenth century Londonderry*. *Ulster Folklife*, vol. IX, 1963.
- JOHNSON, W. BRANCH. *Some Sources of Inn History*. *Amateur Historian*, vol. VI, i, 1963.
- JONES, E. D. *Materials for the Genealogist in the National Library of Wales*. *Genealogist's Mag.*, vol. XIV, 10.
- JONES, E. L. *Agricultural Conditions and Changes in Herefordshire, 1660-1815*. *Trans. Woolhope Club*, vol. XXXVII, 1961.
- JONES, E. L. *Land Utilization Changes and Weather Conditions on the Marlborough Downs, c. 1500-1960* in A. J. CAIN and J. D. CURREY, *Area Effects in Cepaea*. *Philosophical Trans. of the Roy. Soc., Series B*, vol. CCXLVI, 1963.
- JONES, E. L., and TUBBS, C. R. *Vegetation of Sites of Previous Cultivation in the New Forest*. *Nature*, vol. CXCVIII, 1963.
- JONES, G. R. J. *The Distribution of Bond Settlements in North-West Wales*. *Welsh Hist. Rev.*, vol. II, i.
- JONES, G. R. J. *Early Settlement in Arfon: the Setting of Tre'r Ceiri*. *Trans. Caernarvonshire Hist. Soc.*, vol. XXII, 1961.
- JONES, G. R. J. *The Significance of 'Is' and 'Uwch' in Welsh Commote and Cantref Names*. *Welsh Hist. Rev.*, vol. II, i.
- JONES, G. P. *The Decline of the Yeomanry in the Lake Counties*. *Trans. Cumb. & Westm. Antiq. & Arch. Soc.*, vol. LXII, 1962.
- JONES, G. P., and BAGOT, ANNETTE. *The Deeds of Burblethwaite Hall, 1561-1828*. *Trans. Cumb. & Westm. Antiq. & Arch. Soc.*, vol. LXII, 1962.
- JONES, J. I. *A Seventeenth-Century Land Dispute*. *Nat. Lib. Wales Jnl*, vol. XIII, 3.
- JONES, S. R., and SMITH, J. T. *The Wealden Houses of Warwickshire and their Significance*. *Trans. and Proc. Birmingham Arch. Soc.*, vol. LXXIX.
- KEIL, I. *Building a Post Windmill in 1342*. *Trans. Newcomen Soc.*, vol. XXXIV, 1963.
- KEIL, I. *Interpreting medieval Measurements*. *Amateur Historian*, vol. VI, 4.
- KELLETT-SMITH, S. K. *The Old Names of the Channel Islands*. *Société Guernesiaise Rep. & Trans.*, vol. XVII, iii, 1963.
- KELLEY, D. *De Origine Feudorum: the Beginnings of an Historical Problem*. *Speculum*, vol. XXXIX, 2.
- KELSALL, A. F. See STEANE, J. M.
- KENDALL, DIANA. *Portrait of a disappearing Village*. *Sociologia Ruralis*, vol. III, ii.
- KIRBY, D. P. *Strathclyde and Cumbria: a Survey of Historical Development to 1092*. *Trans. Cumb. & Westm. Antiq. & Arch. Soc.*, vol. LXII, 1962.
- LAWTON, R. *Population Trends in Lancashire and Cheshire from 1801*. *Trans. Hist. Soc. Lancs. & Cheshire*, vol. CXIV, 1963.
- LEMON, H. *The Hand Craftsman in the Wool Textile Trade*. *Folk Life*, vol. I, 1963.
- LENNARD, R. *Agrarian History: Some Vistas and Pitfalls*. *Agric. Hist. Rev.*, vol. XII.
- LEWIS, W. J. *The Condition of Labour in Mid-*

- Cardiganshire in the Early Nineteenth Century*. Ceredigion, vol. IV, 4. 1963.
- LINEHAM, C. D. See FRENCH, H.
- LLOYD, T. H. *Ploughing Services on the Demesnes of the Bishop of Worcester in the late Thirteenth Century (Thesis Summary)*. Univ. Birmingham Hist. Jnl, vol. VIII. 1962.
- LONG, W. H. *Robert Elmhirst's Round Green Diary, 1825-6*. Bull. Nat. Register Archives. March 1963.
- LOPEZ, R. S. See CIPOLLA, C.
- LOWENTHAL, D., and PRINCE, H. C. *The English Landscape*. Geogr. Rev., vol. LIV, 3.
- MACLAGAN, D. S. *Plagues of Leatherjackets (1816-1951)*. Farming News, 17 April.
- MARGARY, I. D. *Roman Roads in Britain, their Investigation and Literature*. Cornish Archaeology, no. 3.
- MARSHALL, J. D. *The Lancashire Rural Labourer in the Early Nineteenth Century*. Trans. Lancs. & Cheshire Antiq. Soc., vol. LXXI. 1963.
- MARSHALL, J. D. *The Use of Local History. Some Comments*. Amateur Historian, vol. VI, 1. 1963.
- MARTIN, J. *Lawrence Wilkins's Diary*. Lincs. Historian, vol. II, ii.
- MASON, R. T. *Pond Farm, Southwater*. Sussex N. & Q., vol. XV, 2. 1963.
- MASON, R. T., and PACKER, G. A. *Chennels Brook Farm, Horsham*. Sussex Arch. Coll., vol. CI. 1963.
- MCCULLAGH, P. S. *Twin-Loop Villages in Bedfordshire*. E. Midland Geographer, vol. III, 2. 1962.
- McKELVIE, D. *Aspects of Oral Tradition and Belief in an Industrial Region*. Folk Life, vol. I. 1963.
- MILLER, E. *The English Economy in the Thirteenth Century*. Past & Present, no. 28.
- MINTER, E. MARIE. See DUDLEY, DOROTHY.
- MISKIMIN, H. A. See CIPOLLA, C.
- MOORE, J. S. *The Domesday Teamland: a Reconsideration*. Trans. R.H.S., 5th Ser., vol. XIV.
- MUNBY, L. *Legends True or False?* Amateur Historian, vol. VI, 4.
- MURRAY, JOAN E. L. *The Agriculture of Crail, 1550-1600*. Scottish Studies, vol. VIII, i.
- NAISH, R. B. *A Traditional Welsh-type Pigsty in Berrow Village*. Somerset Arch. & Nat. Hist. Soc., vol. CVII. 1963.
- NEALE, ELIZABETH F. W. *From Yeoman to Court Physician*. Genealogists' Mag., vol. XIV, 9.
- NEWTON, S. C. *The Pipe Roll of a Cromwellian Sheriff of Yorkshire*. Yorks. Arch. Jnl, vol. XLI, i. 1963.
- OSWALD, A. *Excavation of a Thirteenth-Century Wooden Building at Weoley Castle, Birmingham, 1960-61*. Medieval Archaeology, vols. VI-VII.
- OSWALD, A., and TAYLOR, G. S. *Durrance Moat, Upton Warren, Worcestershire*. Trans. & Proc. Birmingham Arch. Soc., vol. LXXIX.
- OWEN, L. *A Seventeenth-Century Common-place Book*. Trans. Hon. Soc. Cymmrodorion, Session 1962. 1962.
- PACKER, G. A. See MASON, R. T.
- PARKS, Rev. Canon G. H. *Stoneleigh Abbey*. Trans. & Proc. Birmingham Arch. Soc., vol. LXXIX.
- PEATE, I. C. *A Cyfeiliog Craftsman*. Montgomeryshire Coll., vol. LVII, ii. 1963.
- PEATE, I. C. *Mari-Lwyd-Láir Bhán*. Folk Life, vol. I. 1963.
- PELLING, H. *Religion and the Nineteenth-Century British Working Class*. Past & Present, no. 27.
- PHILP, B. J. *The Romano-British Farmstead at Eastwood, Fawkham*. Arch. Cant., vol. LXXVIII.
- PHILP, B. J. *Romano-British West Kent, A.D. 43-100*. Arch. Cant., vol. LXXVIII.
- PIERCE, T. JONES. *Bardsey. A Study in Monastic Origins*. Trans. Caernarvonshire Hist. Soc., vol. XXII. 1961.
- PONKO, V. N.S.B. *Gras and Elizabethan Corn Policy: A Re-examination of the Problem*. Econ. Hist. Rev., vol. XVII.
- POSTAN, M. M. *The Costs of the Hundred Years' War*. Past & Present, no. 27.
- POTTER, G. R. *Joseph Hunter Centenary, 6th May, 1961*. Trans. Hunter Arch. Soc., vol. VIII, 5. 1963.
- POUND, J. F. *An Elizabethan Census of the*

- Poor. Univ. of Birmingham Hist. Jnl, vol. VIII. 1962.
- PRESTON, JEAN. *Collections of English Historical Manuscripts in the Huntington Library*. Archives, vol. VI, 30. 1963.
- PREVOST, W. A. J. I. *Sir John Clerk's Trip from Drumcrief to Carlyle in September 1734; II. A Trip into England for a few Days in 1741 by Sir John Clark*. Trans. Cumb. & Westm. Antiq. & Arch. Soc., vol. LXII. 1962.
- PRIAULX, T. F. See FALLA, E. M.
- PRINCE, H. C. *The Origins of Pits and Depressions in Norfolk*. Geography, vol. XLIX, i.
- PRINCE, H. C. See LOWENTHAL, D.
- PUTNAM, W. G. *The Roman Road from Forden to Caersws*. Montgomeryshire Coll., vol. LVII, ii. 1963.
- QUAYLE, G. E. *The Use of Rushes in the Past*. Proc. Isle of Man Nat. Hist. & Antiq. Soc., vol. VI, 2. 1961.
- RAHTZ, P. *The Saxon and Medieval Palaces at Cheddar, Somerset—an Interim Report of Excavations in 1960-62*. Medieval Archaeology, vols. VI-VII.
- READ, D. *The Use of Local History. The Local History of Modern Times*. Amateur Historian, vol. VI, 4.
- RICHARDS, M. *Is Coed Uwch Hirwern in 1651*. Ceredigion, vol. IV, 4. 1963.
- ROBERTS, D. *How cruel was the Victorian Poor Law?* Hist. Jnl, vol. VI. 1963.
- ROBERTS, P. R. *The Decline of the Welsh Squire in the Eighteenth Century*. Nat. Lib. Wales Jnl, vol. XIII, 2. 1963.
- ROGERS, A. *Mid-Nineteenth Century Village Life*. [Welby, Lincs.]. The Village, vol. XIX, ii.
- RUSSELL, J. C. *A Quantitative Approach to Medieval Population Change*. Jnl Econ. Hist., vol. XXIV, 1.
- RYDER, M. L. *The History of Sheep Breeds in Britain*. Agric. Hist. Rev., vol. XII, i.
- SAYCE, R. U. *Further "Queries, Hints, and Suggestions" for the Study of Local History in Powys-Land. Part V. Agriculture, Land-owning, etc., 1760-1960*. Montgomeryshire Coll., vol. LVII, ii. 1963.
- SCHRÖDER-LEMBKE, G. *Englische Einflüsse auf die deutsche Gutswirtschaft im 18. Jahrhundert*. Zeitschrift für Agrargesch. u. Agrarsoz., vol. XII, i.
- SEABORNE, M. V. J. *Small Stone Houses in Northamptonshire*. Northants. Past and Present, vol. III, 4. 1963.
- SEARLE, ELEANOR. *Hides, Virgates, and Tenant Settlement at Battle Abbey*. Econ. Hist. Rev., vol. XVI. 1963.
- SHAW, R. CUNLIFFE. *The Townfields of Lancashire*. Trans. Hist. Soc. Lancs. & Cheshire, vol. CXIV. 1963.
- SHEPPARD, J. C. See FALLA, E. M.
- SIMMONS, J. *The English County Historians*. Trans. Hunter Arch. Soc., vol. VIII, 5. 1963.
- SIMON, JOAN. *The Social Origins of Cambridge Students, 1603-40*. Past & Present, no. 26. 1963.
- SIMPSON, W. G. See ADDYMAN, P. V.
- SMITH, ANN. *Regional Differences in Crop Production in Mediaeval Kent*. Arch. Cant., vol. LXXVIII.
- SMITH, C. S. *The Inconvenience of the Drownings*. Country Landowner, vol. XV, 1.
- SMITH, J. T. See JONES, S. R.
- SNELL, L. S. *Short Guides to Records: Chantry Certificates*. History, vol. XLVIII. 1963.
- SOGNER, S. *Aspects of the Demographic Situation in Seventeen Parishes in Shropshire, 1711-60*. Population Studies, vol. XVII. 1963.
- SPRING, D. *Aristocracy, Social Structure and Religion in early Victorian Poetry*. Victorian Studies, vol. VI. 1963.
- SPRING, D. *English Landed Society in the Eighteenth and Nineteenth Centuries*. Econ. Hist. Rev., vol. XVII.
- SPRING, P. W. H. See ADDYMAN, P. V.
- SPURGEON, C. J. *Gwyddgrug Castle (Forden) and the Gorddwr Dispute in the Thirteenth Century*. Montgomeryshire Coll., vol. LVII, ii. 1963.
- STEANE, J. M., and KELSALL, A. F. *The Park, Moat, and House at New Park, Latham, near Ormskirk*. Trans. Hist. Soc. Lancs. & Cheshire, vol. CXIV. 1963.
- STERN, W. M. *The Bread Crisis in Britain, 1795-6*. Economica, N.S., vol. XXXI.
- STERN, W. *Rockford—a great Name for a*

- Century: Bernard and Joseph Patrick Rochford, Turnford, Cheshunt. The Grower*, vol. LXI, no. 211.
- STOREY, R. L. *The Chantries of Cumberland and Westmorland, Part II*. Trans. Cumb. & Westm. Antiq. & Arch. Soc., vol. LXII. 1962.
- STURGESS, R. W. *A Study of Agricultural Change in the Staffordshire Moorlands, 1780-1850*. N. Staffs. Jnl of Field Studies, vol. I. 1961.
- STYLES, P. *The Evolution of the Law of Settlement*. Univ. Birmingham Hist. Jnl, vol. IX, i. 1963.
- SYLVESTER, DOROTHY. *Cheshire in the Dark Ages*. Trans. Hist. Soc. Lancs. & Cheshire, vol. CXIV. 1963.
- TATE, W. E. *Parish Records and the English Village Community*. Amateur Historian, vol. VI, 4.
- TAYLOR, G. S. See OSWALD, A.
- THIRSK, JOAN. *The Family*. Past & Present, no. 27.
- THOMAS, A. C. See FOWLER, P. J.
- THOMAS, C. *Settlement History in Early Cornwall: I. The Hundreds*. Cornish Archaeology, no. 3.
- THOMAS, S. *The Enumerators' Returns as a Source for a Period Picture of the Parish of Llansantffraid, 1841-51*. Ceredigion, vol. IV, 4. 1963.
- THOMPSON, P. *Liberals, Radicals, and Labour in London, 1880-1950*. Past & Present, no. 27.
- TOYNBEE, MARGARET. *The Andrew Family of Daventry*. Northants. Past and Present, vol. III, 4. 1963.
- TUBBS, C. R. See JONES, E. L.
- TUCKER, G. S. L. *English Pre-Industrial Population Trends*. Econ. Hist. Rev., vol. XVI. 1963.
- TYRER, F. *The Common Fields of Little Crosby*. Trans. Hist. Soc. Lancs. & Cheshire, vol. CXIV. 1963.
- VIRGOE, R. *Some Ancient Indictments in the King's Bench referring to Kent, 1450-52*. Kent Arch. Soc. Rec. Publications, vol. XVIII.
- WAILES, R. See BAKER, P. H. J.
- WAITES, B. *The Memoranda Rolls as a Source of Medieval History*. Amateur Historian, vol. V, 8. 1963.
- WALKER, D. *Charters of the Earldom of Hereford, 1095-1201*. Camden 4th Ser., vol. I.
- WALKER, T. E. C. *The Diary of Admiral Sir Graham Moore of Brook Farm, Cobham*. Surrey Arch. Coll., vol. LX. 1963.
- WANNOP, A. R. *Scottish Agriculture*. Scottish Geogr. Mag., vol. LXXX, 2.
- WARD, JENNIFER C. *The Estates of the Clare Family, 1066-1317*. Bull. Inst. Hist. Res., vol. XXXVII, no. 95.
- WARD, J. T. *A Nineteenth-Century Yorkshire Estate: Ribston and the Dent Family*. Yorks. Arch. Jnl, vol. XLI, i. 1963.
- WASHINGTON, G. *The Border Heritage, 1066-1292*. Trans. Cumb. & Westm. Antiq. & Arch. Soc., vol. LXII. 1962.
- WASHINGTON, G. *The Parentage of William de Lancaster, Lord of Kendal*. Trans. Cumb. & Westm. Antiq. & Arch. Soc., vol. LXII. 1962.
- WELCH, C. E. *Sussex Gentry in 1630*. Sussex N. & Q., vol. XV, 2. 1963.
- WHETHAM, EDITH H. *Land Tenure and the Commercialization of Agriculture*. Agric. Hist. Rev., vol. XII, ii.
- WHITE, D. A. *Excavations at the War Ditches, Cherry Hinton, 1949-51*. [Romano-British farmstead.] Proc. Cambridge Antiq. Soc., vols. LVI and LVII.
- WHITE, J. P. See HIGGS, E. S.
- WHITFIELD, C. *Lionel Cranfield and the Rectory of Campden*. Bristol & Glos. Arch. Soc., vol. LXXXI. 1963.
- WHITTING, P. *Numismatics and Local History*. Amateur Historian, vol. VI, 1. 1963.
- WILLIAMS, M. *The Draining and Reclamation of the Somerset Levels, 1770-1833*. Trans. Inst. British Geographers, vol. XXXIII. 1963.
- WILLIS, A. *Winchester Guardianship Records after 1700 in the Charge of the Diocesan Registrar*. Genealogist's Mag., vol. XIV, 8, 9, 11. 1963, 1964.
- WILSON, J. D. See CANTOR, L. M.
- WITHERBY, C. T. *Island Sites Revisited. The Gurnard Roman Villa*. Proc. Hants. Field Club, vol. XXII, ii. 1962.

- WOLFFE, B. P. *Henry VII's Land Revenues and Chamber Finance*. Eng. Hist. Rev., vol. LXXIX.
- WOOD, MARGARET. *Norman Domestic Architecture*. Trans. Newbury District Field Club, vol. XI, 2. 1963.
- WOODWARD, G. W. O. *A Speculation in Monastic Lands*. Eng. Hist. Rev., vol. LXXIX.
- YATES, E. M. *Map of Over Haddon and Meadowplace, c. 1528*. Agric. Hist. Rev., vol. XII, ii.
- ZAGORIN, P. *English History, 1558-1640: a Bibliographical Survey*. Amer. Hist. Rev., vol. LXVIII. 1963.

NOTES AND COMMENTS (continued from p. 22)

new map of land use in Hertfordshire at the time of the tithe awards. It intends to map land use field by field on six-inch maps, using the colour code adopted by compilers of the modern Land Utilization Survey. Anyone who has already done work on the tithe awards for Hertfordshire or who would like to offer his or her services in the future is invited to get in touch with Mr E. J. Connell, 97 The Avenue, Bengoe, Hertford, Herts.

AN INTERNATIONAL BIBLIOGRAPHY OF AGRARIAN HISTORY

The Hungarian Museum of Agriculture has undertaken to produce an international bibliography of current literature on the history of agriculture. The bibliography is to cover all aspects of agrarian history: the history of settlement, rural society, agricultural techniques, law, and education, and is to be published in an annual volume under the title *Bibliographia Historiae Rerum Rusticarum Internationalis*. Each reference in the bibliography will give the name of the author, title of work, volume number, if any, place of publication, publisher's name, date, and page references. Members of this society wishing

to submit bibliographical material should send it to the Bibliographic Section of the Hungarian Museum of Agriculture, Budapest XIV, Hungary. Publications for the year 1964 must be received by June 30, 1965. The first volume of the bibliography, containing publications of 1960-1, appeared in 1964.

RESEARCH ON AGRICULTURAL IMPLEMENTS

The International Secretariat for Research on the History of Agricultural Implements, which has its headquarters at the National Museum, Copenhagen, maintains an international bibliography and library of books on the history of farm and, particularly, ploughing implements. It has no money for buying books, and the secretary, George Nellemann, would therefore be grateful if authors of articles on the subject would send offprints (preferably two copies, one for reference, and one for loan) or, if this is not possible, at least a note of the title and other bibliographical details of such works. The Secretariat sends out a newsletter each year listing the year's accessions to the library.

Book Reviews

MARIE CLOUGH (ed.), *The Book of Bartholomew Bolney*. Sussex Record Society, Vol. LXIII, 1964.

This is the estate book of an interesting Sussex family whose landed fortunes appear to have been at their apogee in the middle years of the fifteenth century. Bartholomew Bolney (1405?-77) was a typical member of the county gentry. Trained as a lawyer, he acted as steward to the abbot of Battle, kept a court in Sussex for the archbishop of Canterbury, was a J.P. and on innumerable government commissions in his county. Like other Kent and Sussex gentry he supported Jack Cade and seems to have suffered no set-back in his career for having done so. Although a gentleman in 1450, his ancestors may have been yeomen, but this is uncertain.

This book is essentially a collection of proofs of title, but it contains more than records of deeds. Under the heading of each place where Bolney had property are entered detailed rentals and a sort of narrative of the various acquisitions and titles. As a layman's cartulary the book is a comparative rarity, reminiscent of the Boarstall Cartulary. Much of the legal and tenurial detail is of minor interest to the agrarian historian, whose real need is for matter which reveals agricultural practice. But there are nevertheless items of considerable interest. In spite of attempts at consolidation, it is clear that there was very great fragmentation of holdings, both arable and meadow. And in spite of the still low level of population, there is much evidence of the shortage of pasture and of its careful regulation, suggesting an increase in livestock.

Bolney's inheritance, mainly built up during his lifetime, began to be dissipated immediately after his death and was all gone from the family less than a century afterwards. Is this an illustration of the same instability of landed fortunes among the gentry as was characteristic of the richer peasants at this period?

The book is translated from the Latin and

edited with competence and discretion. Dr Clough's introduction is admirable as far as it goes. One wishes she had been allowed to write at greater length about the agrarian background. A map or maps would have increased the interest and utility of the edition.

R. H. HILTON

MARY LOBEL (ed.), *A Victoria History of the County of Oxford. Vol. VIII, Lewknor and Pyrton Hundreds*. Published for the Institute of Historical Research by Oxford University Press, 1964. xxx + 298 pp. £7 7s.

This volume is the fourth of the topographical volumes prepared by the present editor since 1957, and like its predecessors it is mainly concerned with the flat country between Oxford and the Chiltern hills. The hundreds of Lewknor and Pyrton lie adjacent to one another at the eastern edge of the plain with their southern tips extending over part of the Chilterns. They are just south of the town of Thame and a few miles to the north-west of the Thames at Wallingford. For agricultural historians this is an area of great interest because it was one of the last strongholds of open-field farming in England; no fewer than eleven of the fourteen parishes included in this volume retained their open fields into the nineteenth century, and one of them, Crowell, was not enclosed until 1882, being one of the last in the country.

Thus this detailed study of the region presents an excellent opportunity to examine the complex forces involved in such a long survival of the ancient system, and a chance to assess their relative strength, parish by parish. It is not the policy of the Victoria History to draw general conclusions about the regions it includes in its topographical volumes, but from the abundance of hitherto little-used manuscript sources on which the editors have been able to draw, unusually full sections on agrarian history have been provided, and these are of real value to specialists in agricultural history. They are conveniently aug-

mented by some maps of the field systems before enclosure. Five maps covering complete parishes and two covering parts of parishes are provided. These maps are so helpful that one wishes it had been possible to provide maps for all the parishes. Expense is no doubt a limiting factor, but there is no substitute for a map; and even a post-enclosure map based on the enclosure, or the tithe, award is better than nothing.

In the survival of the open fields many complex influences, some of them purely personal or eccentric, played their part, but three basic factors continually recur—the nature of the soil, the structure of land-ownership, and improvements in the practices of open-field farming. Nearly all the parishes in Lewknor and Pyrton hundreds are what are known as strip parishes and they are common to much of the English limestone and chalk scarpland. They are parishes based on ancient settlement which have assumed a long narrow form in order to take advantage of the prevailing geological conditions. They are frequently several miles long (the ancient parish of Pyrton, which included the separate townships of Clare, Golder, and Standhill in the vale, and Assendon on the Chilterns, was twelve miles long) but seldom more than a mile wide, and sometimes much less. This shape enabled them to take maximum advantage of the differing soils. The villages themselves are usually situated on the narrow belt of fertile upper greensand which lies below the chalk of the Chilterns, near the spring line. The core of the old open fields was on the greensand, and they extended northwards to the edge of the heavy gault clay and southwards on to the lower slopes of the Chilterns. The gault clay was usually too wet and stiff for much arable farming and was used as common meadow or pasture, while the thin, stony soils on the Chilterns provided common grazing or timber in the extensive beechwoods. The hamlets on the Chilterns sometimes had a few open fields but the bulk of their land was enclosed and much of it had been so since it was first cleared for cultivation.

It is clear that the arable land on the green-

sand was very fertile and this must have enabled farmers there to continue to find farming profitable in the open fields when it was ceasing to be so in other parts of the country. This would apply particularly to the numerous small freeholders in the district. For instance, Arthur Young reported in 1809 that the yield of wheat in the common fields of Aston Rowant was five quarters per acre compared with an average of three quarters for south Oxfordshire as a whole (p. 31). At Chinnor in 1699 land in the common fields usually sold for twenty-five to thirty years' purchase and the best land at forty years' purchase (p. 69). In contrast the gault clay land was unsuitable for crops, but grew fair grass, and it is not surprising that the small townships (mostly containing 500–750 acres) which had grown up on it were the first to be enclosed. Some of them such as Clare, Standhill, and Golder (all in Pyrton parish) and Cop Court and Chalford (in Aston Rowant parish) are now only single farms; while the others, Emmington, Adwell, and Wheatfield, are hardly more than hamlets. All these townships were mainly enclosed in the fifteenth and sixteenth centuries or earlier.

Geographical position was also a factor favourable to the open fields, for most of the villages in Lewknor and Pyrton hundreds were within ten miles of the river port of Henley-on-Thames from which corn, malt, and other agricultural produce could be cheaply transported to the London market. This tended to encourage the continuance of arable cultivation and so to inhibit enclosure for pasture.

The importance of social structure is also clearly brought out, and this is linked to favourable economic conditions; for it is clear that in most cases the continuance of open-field farming was closely associated with a large group of freehold owners farming their own land; and the maintenance of small freehold farms of this type required favourable soil and market conditions. The influence of these small owners was particularly noticeable in Chinnor, which was not enclosed until 1854. In 1841 90 people owned

land in Chinnor, of whom only seven owned more than 50 acres. The majority of the freeholders (45) owned only cottages, orchards, or gardens, but there were 38 farmers owning under 25 acres. These freeholds were of several centuries' standing, most of them having originated when the manor was split up and sold in 1591. Freeholders with small holdings were also numerous in other parishes, and especially in Watlington, Lewknor, and Kingston Blount (a township of Aston Rowant parish). They usually had to be bought out before enclosure could occur. For instance, in Chinnor Samuel Turner, a Londoner who inherited an estate in the parish in 1830, and who never resided there, bought out 21 smallholders between 1830 and 1854, before he could obtain sufficient agreement for enclosure—which apparently interested him solely as a speculation in land values (p. 70). Again at Kingston Blount, where enclosure came slightly earlier (in the 1830's) it "was evidently the number of small landowners at Kingston Blount that delayed inclosure of the common fields of Aston and Kingston. It finally came in 1832-5, after the holdings ranging from $\frac{1}{4}$ -acre to 58 acres of some 23 farmers had been bought up" (p. 31). The same story could be repeated elsewhere in the region.

However, the question remains: did open-field farming survive in this area because it was a backwater inhabited by a multitude of conservative peasants—Arthur Young's "goths and vandals"—who were too stupid and narrow-minded to see the advantages of enclosure, or had some improvements taken place in open-field farming which made it tolerably convenient and profitable? No doubt there is some truth in both views. Inertia and dislike of change are usually strong forces, but there is enough evidence of improvements—necessarily scattered about in leases, court rolls, and accounts—to suggest that some of the more serious disadvantages commonly associated with open-field farming had been overcome. For instance, at Crowell in 1809 Arthur Young found that there was an agreement to sow about a third

of the land with clover and vetches. This was presumably on the fallow field as at South Weston, where a similar agreement had been made in 1763, to try an experiment of growing turnips, vetches, and clover on the fallow field to increase its fertility. Similar agreements probably existed in other parishes as well.

The variable use of arable strips by sowing them to grass as temporary leys had also been in existence for many years, as for instance in Aston Rowant, where as early as 1618 Combe furlong was described as consisting of 5 acres of arable land and 9 acres of pasture. The enclosure of part of a parish and its conversion to pasture could also help to strengthen the open fields by relieving the shortage of grassland. This was especially true of old enclosures which were 'Lammas land' (i.e. on which common grazing rights still existed at certain times of the year). Such enclosures were not uncommon.

The consolidation of strips into compact blocks of about twenty acres had occurred at Shirburn by 1730 (p. 191), no doubt accompanied by other minor improvements. It is not possible to give further examples here, but there is enough evidence to indicate that open-field farming was considerably modified during the eighteenth century, if not even earlier, and that this was an important influence in its survival.

Of course, the survival of the open fields is not the only subject of interest in the agricultural history of this area. There is much interesting material relating to earlier and later periods, and the editors are to be congratulated for giving the subject such detailed treatment. The volume is handsomely produced and contains excellent illustrations, including twenty-six photographs and thirteen reproductions of old prints and drawings.

M. A. HAVINDEN

H. MUNZ, *The Australian Wool Industry*. Angus and Robertson, 1964. 2nd edn. 237 pp. 50s. (Australian).

This book, first published in 1950, has been revised and new chapters added to bring it

up to date. It has a general approach aimed at the practical sheep man. Although there are several historical chapters of an introductory nature concerning the introduction of Merino sheep into Australia, and their subsequent evolution, the main appeal of the book to the agricultural historian will lie in its summary of the Australian wool-growing industry.

All aspects from geography and climate through structure of the industry and sheep types to life and work on a sheep station, and the classing and marketing of wool are dealt with. Chapters concerning research on sheep and on the structure of the wool fibre give useful and up-to-date summaries, but that concerning the growth of wool within the skin is weak, and readers needing to quote such details should seek more authoritative information elsewhere. There is a useful 13-page glossary of wool and textile terms, and an up-to-date bibliography.

M. L. RYDER

REX C. RUSSELL, *The Enclosures of East Halton, 1801-1804 and North Kelsey, 1813-1840*. Rex Russell, 11 Priestgate, Barton-on-Humber, Lincs., 1964. 78 pp. + 4 maps. 4s.; REX C. RUSSELL, *The Enclosures of Bottesford and Yaddethorpe, 1794-7, Messingham, 1798-1804, and Ashby, 1801-1809*. Journal of the Scunthorpe Museum Society, 1, 1964. 40 pp. 5s.; V. H. T. SKIPP assisted by R. P. HASTINGS, *Discovering Bickenhill*. Department of Extra-Mural Studies, Birmingham University, 1963. 96 pp. 6s.

Adult-education tutors and their classes have produced some excellent local studies in the past few years, and have been showing considerable ingenuity in getting them published. The three books under review are the next in an honourable line, all well illustrated with maps (those furnished by Rex Russell are especially large and beautiful specimens of the mapmaker's art) and all moderately priced.

Mr Rex Russell, who has already completed some admirable studies of Parliamen-

tary enclosures in north Lincolnshire, here describes the course of five more. His maps, analyses of proprietors, their allotments, and the cost of enclosure, his use of enclosure commissioners' minute books and newspapers supply all the information that anyone could wish for. And for anyone seeking fruitful ideas for a novel, there are many embedded in the fantastic story of the North Kelsey enclosure. The commissioners set to work with alacrity as soon as the Act was passed in 1813. By 1817 things were slowing down noticeably and between 1822 and 1824 the commissioners were meeting only once a year. It was not until 1840 that the award was finally executed, and by that time 36 out of 61 proprietors were dead.

The explanation for the long delays lies, in Mr Russell's view, in the eagerness of the commissioners to take on every enclosure appointment that came their way; they were too lucrative to miss. One of the commissioners for North Kelsey, John Burcham, accepted at least twenty more appointments between 1813 and 1840 besides serving as steward to Lord Yarborough. He left a fortune of £600,000, and although it is not suggested that all this came from the luckless proprietors of Lincolnshire parishes, the documents show that he was a hard man who made sure of getting his own accounts paid while poorer men suffered. Contractors digging the new ditches and laying the new roads waited eight years and more for their bills to be settled, while one proprietor who had land awarded to him waited indefinitely for some means of access to it. The financial cost of the enclosure was only one aspect of the hardship and frustration which it occasioned.

Discovering Bickenhill is the outcome of team-work by adult-education students on the local history of a large parish in Warwickshire, seven miles from Birmingham. Geological information, manorial boundaries, and the present-day map are cleverly exploited for their information on the early history of settlement; deeds and manorial documents are used to trace the changes in field layout, land use, and landownership; parish docu-

ments shed light on population size and problems of local government up to the mid-nineteenth century. To the present reviewer the most impressive part of the story is that in which the complex field pattern at Church Bickenhill in the period 1290 to 1350 is constructed from medieval deeds and then compared with a survey of 1677 when a regular three-field system had emerged. It is a convincing example of the way in which fields were rationalized and tidied up into a system, contrary to the prevailing view which maintains that the system was in existence from the outset and that by hook or by crook we must fit the muddled medieval pattern of fields into it. Others may well find other gems in this account, for it touches on many facets of social and economic history. And most good local studies, such as this, lead to the modification of more than one old-established generalization.

JOAN THIRSK

DAVID SPRING, *The English Landed Estate in the Nineteenth Century: its Administration*.

Johns Hopkins Press: Oxford University Press, 1963. vi+216 pp. 40s.

David Spring's book appears as a timely contribution to the present discussion of the English landed estate and, in particular, to the controversy centring round the rôle of the nineteenth-century landlord. Indeed, in many ways the most interesting part of an interesting volume is found in the few pages of conclusion in which these matters are specifically considered. Here the author discusses only too briefly the advantages and disadvantages of the English landlord-tenant system and the capacity of landowners as estate managers. He shows that his sympathies lie with those who believe that agricultural progress was not unduly hampered by the legal restrictions imposed on settled land, or by the absence of leases, which he states was due more to economic causes than to a concern with game or votes. Professor Spring is thus in clear agreement with those other scholars who have taken the trouble to thumb tediously through the estate archives, and rejects the

argument of those who have not subjected themselves to this sobering experience. In short, he believes with Dr Thompson that the melodramatic view of nineteenth-century landlords adopted by Mr McGregor (the adjective is Professor Spring's) ignores the cold realities of agrarian history.

Professor Spring's evidence also tends to reinforce Dr Thompson's argument that, so far from neglecting agriculture, much of the heavy estate investment of landlords of the middle nineteenth-century was uneconomic. Their capital laid out in drainage, farm buildings, and cottages frequently produced a return of a mere 2½ per cent (as on the Duke of Bedford's estates), and to finance this investment landlords were in fact often borrowing at 4½ per cent over terms of twenty-five years or more—terms whose length took many of them beyond the 1879 limit of rising rentals and into the slough of the great depression. Why did landlords choose to invest in so uneconomical a manner, or, as Dr Thompson would put it, why did they subsidize farming at so great a cost to themselves? Professor Spring sees the answer in the imperatives of the system of administration of great estates, particularly in the control exercised by agents, enthusiastic for improved productivity, and fascinated by the techniques of the new scientific agriculture. In addition, many large owners of the golden age had buoyant incomes from mines or urban ground rents, and could afford to look with a degree of complacency on a high and unprofitable level of farm investment. And, of course, the undertaking of this kind of investment was a fulfilment of the traditional rôle of the landlord: in this way he asserted his leadership in agricultural affairs, and at no small cost to himself met the new standards of fixed capital required for the successful 'high' farming of his tenants.

Professor Spring believes that by the mid-nineteenth century the English aristocrat had undergone some transformation in character. On the defensive in the political sphere, he now extended and intensified his activities in agricultural and administrative affairs, and in consequence he often adopted a more busi-

nesslike and scientific attitude towards the running of his estate. Such a landlord found an appropriate chief executive in the barrister-auditor, who controlled the local land agents and undertook the detailed administration of the property. With considerable reliance on the history of the Bedford estates under the seventh Duke and his auditor and chief agent Christopher Haedy, but with a wealth also of other contemporary illustrations, Professor Spring examines in detail the efficiency, drive, technical knowledge, and the single-minded loyalty to the well-being of the estate which the best administrators showed. He has an intriguing chapter on the rôle of lawyers in estate management, and a series of case studies, from which one concludes that the Scots were strongly represented among the best agents. Some of these were men of considerable distinction. James Loch, for example, "was a Member of Parliament and a cultivated man. He was the friend of Huskisson, Peel, and Brougham. He was a director of the English Historical Society, and sprinkled his letters to Lord Francis with erudite bits of etymological lore. In cultivation he was his employer's equal; in business, his master and tutor. Such men demonstrated the power of professional excellence, and in time would cast doubt by their mere existence on the purported excellences of a hereditary aristocracy."

As in the eighteenth century, the competent estate agent was important in stimulating improved farming methods. Reluctantly respecting the traditional regard for old tenants of the family and the conventional security of tenure, he weeded out the inefficient. Sometimes he was obliged to concern himself with electoral matters, and not infrequently with the oversight of mines, quarries, and canals—and in one case, at least, an agent was prepared to do battle against striking miners, sending for troops and taking up station in the engine house in the hope that the miners might rashly attack, when "several must be killed which will more rapidly put an end to the matter."

For all these responsibilities the remunera-

tion was respectable, if not opulent: it generally amounted to from 3 to 5 per cent of the gross rental, or a sum of from £500 to £1,000 a year, with a house and certain other allowances. The social origins of the agents were various, but in the main their background was one of practical acquaintance with the expertise required for estate administration—they were very often farmers, builders, surveyors, or mining engineers, and frequently the sons of land agents themselves. Their formal training was usually slight, although some went as pupils to established land agents. Originating and remaining firmly within the middle classes, they knew their place and generally kept it: it was an unusually bold agent who would presume to upbraid his employer for extravagance harmful to the estate—although Lord Francis Egerton was once informed that his agent would let him know "when you may again increase your outlay."

A valuable chapter considers the state-provided drainage loans, the legislative measures designed to relax the financial rigidities of settled estates, and the work of the land-drainage companies and the Enclosure Commissioners in helping landlords to improve their estates. But it is in this aspect of the study that the reader feels especially the limitations imposed by Professor Spring's choice of a restricted period and a restricted treatment. Thus, while we have a useful discussion of the work of the enclosure commissioners we have nothing on tithe commutation or the tithe commissioners, and while the relatively unimportant legislation of the mid-nineteenth century is examined in some detail, the study of the changes in land law runs out with a brief statement on the Settled Land Act of 1882. One cannot but think that what the author has chosen to give us, interesting and useful as it is, should have constituted the central section of a much longer book. As it is, we are presented with only the middle act of a three-act drama, and are left wondering what happened before and what came after. How did estate administration develop before the 1830's—the French wars and the post-war depression period would be worth an ex-

tended examination—and what was the impact on estate administration of the great price fall of the last quarter of the century?

And even if it is accepted that the middle forty years of the century have a certain unity as the heyday and final flowering of the great landed estate, and thereby merit separate treatment, it must be said that this treatment still omits much of importance. For example, Professor Spring merely touches on the relationships between the great owners and the rising industrial and commercial classes, whose interests in the transport changes, urban expansion, and the growth of the coal and iron industries offered both challenge and opportunity to estate administrators; little reference is made also to the connected topic of the growing incomes from urban land; more might have been expected on relations between tenant farmers and estate administration—a matter of some importance in view of Mr McGregor's criticisms; and lastly, as Professor Spring states, he has not extended his study to the growth of land agency as a profession and the rise of London firms of agents.

While we must therefore be grateful for this interesting and stimulating study, we must also regret that it was not conceived on a broader and more valuable scale.

G. E. MINGAY

J. OXLEY PARKER, *The Oxley Parker Papers from the Letters and Diaries of an Essex Family of Land Agents in the Nineteenth Century*. Benham & Co., Colchester, 1964. ix+300 pp., illus. 21s.

This is the history of an Essex family from the late eighteenth to the late nineteenth century. It was originally prepared for family consumption, but through the good offices of Mr F. G. Emmison, county archivist of Essex, the author was persuaded to put it at the disposal of a wider audience. The family was at least well-to-do, even rich, and besides being landowners and farmers acted as land-agents for several owners, and arbitrated in disputes about land from about 1800 to 1880.

The constant fluctuations and crises in

farming that repeatedly happened in the nineteenth century are already well known to economic and agricultural historians. This volume emphasizes their incidence in a particular area of the country, where the family played a large part in trying to ameliorate the conditions for a good many people, and did their best to overcome the successive difficulties that followed in such rapid sequence. Both father and son had an intimate knowledge of the area they served—they lived there all their lives—and their experiences are well worth following, if only because they underline the troubles of farming in their time, troubles that we ought to hope will never recur. It should certainly be read by Essex historians, and indeed those of wider interests. It is one of those useful family records that illuminate the duller chronicles of government inquiries and private polemic writing. A disconcerting feature of the book is the author's habit of referring to his ancestors by their initials; while these must be well known in the family, the outside reader is occasionally baffled.

G. E. FUSSELL

MANCUR OLSON, JR. *The Economics of the Wartime Shortage: A History of British Food Supplies in the Napoleonic War and in World Wars I and II*. Duke University Press, Durham, North Carolina, 1963. viii + 152 pp. \$4.50.

It was a happy idea of Mr Olson to examine the British food situation during the struggle against Napoleon and in the wars of 1914–18 and 1939–45. As Great Britain was the only power continuously at war for the complete periods covered by these events, the relevant statistics (such as they are) for the British economy are naturally the most extensive available. As an economist Mr Olson is primarily concerned to discover similarities in the British experiences and seeks in a rather naïve and unsatisfactory introduction to apply economic theory to the analysis of the three situations. As an economic historian the present reviewer is inclined to keep in mind the dissimilarities and the uniqueness of each

set of historical events. Even where the general situation appears superficially very similar, e.g. in 1914-18 and 1939-45, there were extraordinary differences in the way the food problem was handled. An example is the reluctance to introduce food rationing until the First World War was nearly over, in contrast with its early application during the Second World War. Confidence in the power of economic analysis to enlighten the historian is not likely to be strengthened by statements such as "Agriculture is, needless to say, confined to rural areas, areas which for the most part support no other industry" (p. 20). To anyone familiar with the extent of the domestic system of industry in the countryside during the early nineteenth century, and the proliferation of industries into rural areas in the early twentieth century, this generalization appears to bear little relation to the facts of British economic life.

When Mr Olson gets away from his introduction he has many interesting and valuable things to say, in particular about the food situation during the First World War, which is not well remembered and about which little seems to have been written recently. It will be most useful for students of economic history at all levels to have so many references to the extensive literature on the subject assembled and subjected to a preliminary analysis by someone who is versed in the strategic as well as the historical and economic implications of the subject. In particular British readers will be made aware of François Crouzet's monumental *L'Economie Britannique et le Blocus Continental, 1806-1813* (2 vols.), Paris, 1958, which was unaccountably ignored in the appropriate volume of the *Oxford History of England*.

W. H. CHALONER

MICHEL DEVÈZE, *La Vie de la Forêt Française au XVII^e Siècle*. Ecole Pratique des Hautes Etudes, Sixième Section, Centre de Recherches Historiques, Paris, 1961. 2 vols. 326 pp., 474 pp.

The French have shown great interest in the history of their forests and can produce as

impressive a bibliography on the subject as the Germans, yet no general history has been published since Alfred Maury's *Histoire des Forêts de la Gaule et de l'Ancienne France* (1867). In the meantime much additional documentary evidence has come to light. Michel Devèze, therefore, builds this new study of the French forests in the sixteenth century upon the solid foundation laid by others (his bibliography at the beginning of Volume I is of great value), and adds much new material culled from hitherto unused administrative and legal records. It is an instructive and interesting story in many ways, not least because the crisis in the forests overtook the French at least fifty years before it afflicted the English forests, and judging by some remarkable similarities in their policies, the English Crown took some lessons from the French.

The story is not mainly one of parallels, however, but of significant differences. Royal forest law did not cut across the rights of owners of the soil as it did in England. The French king's rights were restricted to his own estates, and extensive though his forests were, they were no greater in many districts than those belonging to lay lords, ecclesiastics, and villages. However, as the century wore on, the Crown began to intervene more and more in the management of private forests on the ground that their preservation, particularly as sources of timber, was a matter of public interest. The only forests which escaped attention were the communal forests belonging to villages, but these did not as yet invite commercial exploitation. They lay for the most part in the thinly settled and poor-soiled mountainous areas of the south and east, in the Pyrenees and the Alps, and in any case were fairly carefully administered by the communities owning them. They remained a piece of communal property run on medieval lines throughout the period.

The problems of royal and private forests all sprang from the same cause. The increasing population was making heavier demands on all forest resources, demanding more pasture for an increasing number of animals,

more arable for cultivation, more fuel for more fires, fuel for expanding industrial uses, and fuel for the towns. The old forest laws were totally inadequate: they did not effectively control the use of wood for commercial purposes or restrict the growth of workshops and forges; they paid no heed to rising numbers, but conceded common rights to all comers; they almost encouraged offenders by their lenient fines.

Owners began to fret at the restraints imposed by commoners upon the commercial development of their forests. But it was the Crown which took the first steps towards breaking this stranglehold, initiating reforms which lesser landowners then copied. Francis I ordered a survey of his forests and instituted a court of judges, sitting at the *Tables de Marbre* to administer speedy justice. Other landowners recognized in these measures a solution to their problems and availed themselves of the services of royal surveyors, forest advisers, and courts to rescue their forests from ruin.

Reforms were introduced with remarkably little opposition from the commoners. They accepted various curtailments of their rights: often they were given free use of one-third of the forest while the remaining two-thirds became the exclusive preserve of the owner; in other cases they accepted larger or smaller allotments according to their estimated needs. Occupants of houses built less than forty years before forfeited their common rights; industrial workers had to buy the wood they needed for their furnaces and forges. The crisis of the forests was averted to the satisfaction of the owners and at the expense of the commoners.

Much of this study is based upon administrative documents, and so is especially concerned with administrative problems. There is still room for another study which uses local records to uncover something more about the agricultural communities of the forest. For while the structure of forest industries emerges fairly clearly—more clearly from French documents than from English ones—the details of the agriculture elude the

author of this book. He describes the commoners' rights to pasture and gives examples of the horse-rearing, cattle-keeping, and pig-fattening, which were staple activities in most forests, but he views the crisis of the sixteenth century from the standpoint of the proprietors and the industrial and urban users of timber, and does not have much to say about the agricultural problems which must undoubtedly have beset the forest inhabitants when their common rights were drastically reduced. In England the absence of forest reforms encouraged a swarm of immigrants to move into the forests, which in the seventeenth century acquired a reputation for being the refuge of a wild and ungovernable people and the home of religious dissent. In France it is difficult to believe that economic conditions after the reforms attracted outsiders into the forests, yet they still became the centres of opposition to established authority, inhabited by supporters of the *ancien régime* and enemies of the revolution. In short, a host of important questions are bound up with the effect of forest reforms in the sixteenth century upon the subsequent agricultural and social development of the forest communities of France.

JOAN THIRSK

WILHELM ABEL, *Geschichte der deutschen Landwirtschaft vom frühen Mittelalter bis zum 19. Jahrhundert*. 1962. 336 pp. DM. 43.80; FRIEDRICH LÜTGE, *Geschichte der deutschen Agrarverfassung vom frühen Mittelalter bis zum 19. Jahrhundert*. 1963. 270 pp. DM. 37.80; HEINZ HAUSHOFER, *Die deutsche Landwirtschaft im technischen Zeitalter*. 1963. 290 pp. DM. 39.80. Vols. II, III, & V of *Deutsche Agrargeschichte*, ed. Prof. Dr Günther Franz. Verlag Eugen Ulmer, Stuttgart.

These three volumes are the first to appear in a series of five which will cover the agrarian history of Germany from prehistoric times to the present day. This large theme is being skilfully compressed into some relatively slim volumes, each the work of one hand. Professor Wilhelm Abel writes on the agrarian

economy from the early Middle Ages up to the nineteenth century, seeking to relate the economic fortunes of landlords and farmers to changing population levels and changing techniques. Professor Lütge concentrates on the structure of society during the same period, while Dr Haushofer describes the course of the agricultural revolution from 1815 to the present day. Two volumes are yet to come: Professor Jankuhn will deal with prehistoric and early settlement history; Professor Franz is preparing a volume on the peasantry as a class. The complete series affords an interesting comparison with the *Agrarian History of England and Wales*, now in preparation.

English readers will know Professor Abel already through his work on the desertion of villages in Europe at the end of the Middle Ages. The same style and approach is evident here: in a closely woven narrative he examines and, where possible, co-ordinates every aspect of technical and social development, offering at the same time a framework of generalizations that will pull the many tangled threads of the story into order. He sees the beginnings of village life in the settlements of two or three families with ring-fence farms, cultivating their land on an extensive rotation of corn and grass. As numbers increased—and he postulates something of a population explosion during or immediately after the seventh century—these small groups of farms grew into nucleated villages and land was more intensively cultivated. All improvements thereafter until the fourteenth century, and with some interruptions virtually until the eighteenth, were directed towards increasing the productivity of the arable. They included the introduction of the three-course rotation, the development of the common-field system, and the use of many new arable crops. Simultaneously, the forest and grassland diminished and stock-keeping declined. Animals were considered a necessary nuisance only, providing manure, but not to be fed on crops that might feed men. Sheep were fed on stubble; swine were still kept in the remaining forests; but cattle withdrew to the

areas which lent themselves naturally to cattle-keeping, namely, the marshlands and the mountains. Not until the plagues of the fourteenth century, when the proportion of men to cattle was temporarily changed, did the peasant begin to enjoy beef.

The losses of population through plague were not made good until about 1560 when pressure on the land encouraged a fresh wave of colonization and increasing agricultural specialization. East Germany and Poland concentrated on corn production, west and central Germany on stock-keeping, and a lively traffic in cattle, which had begun on a small scale in the fourteenth and fifteenth centuries, brought stores and oxen by the thousand from parts of Poland, Russia, and Hungary to the great marts of Posen, Frankfurt an der Oder, and Büttstadt, Vienna, Breslau, and Brieg. Professor Abel draws attention to new methods employed at this time to intensify production, but concludes that more was done to meet the needs of the growing population by enlarging the area under cultivation than by economies in the use of land. A spate of farming manuals poured from the printing presses, but, as before, arable farming received the lion's share of attention and stock was comparatively neglected.

The history of agriculture during the Thirty Years' War is evidently no better documented than that during the English Civil War and Professor Abel has little to say of this period. But the losses of population were so large that the peace was followed by a period of extraordinary enthusiasm for innovation and improvement, unparalleled in Europe, which lasted from 1670 to 1750, and which affords abundant written evidence for the first time on the types of grain varieties in use, techniques of farming, and breeds of stock.

One of the most striking features of Professor Abel's account is his pessimistic judgement on the standard of farming before the nineteenth century. Observing the close parallels between German and English agricultural development up to the end of the sixteenth century, the English reader may

well wonder whether the picture is not unduly gloomy. Clearly, the majority of the rural population in Germany, as in England, consisted of subsistence farmers. But the rôle of the improving farmer should not be underrated. His routine may be impossible to guess at, but his influence can be detected in the amount of specialization on farms in the Middle Ages, the scale of activity at the markets, and in isolated scraps of information about technical innovations. Professor Abel himself writes of specialized milk and butter production in the mountains and cattle-fattening in the marshes at the end of the Middle Ages. Friesian cattle were sold as such on German markets. A Cologne market ordinance of 1492 speaks of the sale of Hungarian, Polish, Danish, and Russian cattle. Fruit-, vine-, and hop-growing are said to have expanded greatly in the late fourteenth and fifteenth centuries, despite the fact that labour was in short supply. From all this specialized activity, we must infer the existence of sizeable markets or other channels for the exchange of agricultural produce, and hence plenty of incentives to further improvement. Did no one respond? Surely, when we find that Dutch bulls and Friesian cows were being imported into Germany in the 1580's, and that the watering of meadows was being practised in the seventeenth century, we may suspect the existence of some improving farmers, even some who did not regard stock as a tiresome necessity. In short, Professor Abel's generalizations are stimulating but not always convincing.

Professor Lütge's volume on the structure of rural society is particularly valuable for its account of regional differentiation, especially in the later pages where the evidence is more abundant. Some regions of Germany became and have remained the strongholds of a prosperous peasantry, others of a poor peasantry dependent on handicrafts for supplementary employment, yet others of large landlord farmers. There is much to be learned here about the relative influence of different institutions upon each kind of society.

On the thorny problem of the origins of

society, Lütge offers an opinion that steers a middle course between the two extreme views now current in Germany. Early society, he argues, consisted of free men as well as lords and their underlings, but as lords took possession of large tracts of territory and population increased, the descendants of freemen in search of land were forced to rent it from a lord on his terms. The class of free tenants did not expand until the post-Carolingian period when a fresh wave of colonization began, and settlers had to be attracted with freer tenures.

Uncertainties about the unfree peasant's right to pass on his land to his descendants were brought to an end by the hardening of custom, and in some areas this led to much partitioning of holdings. Eventually, many tiny holdings and an impoverished peasantry emerged, but at first, Lütge argues, partible inheritance was economically advantageous for it led to more intensive cultivation of the land. It is no coincidence, he writes, that the partitioning of holdings increased in the twelfth and thirteenth centuries as towns expanded. But perhaps Lütge has missed the more important social causes for the prevalence of the custom at this time. Land was in short supply and heirs were driven to stand upon their rights to inherit family property. We find the custom in vogue in parts of England in the sixteenth century, and for the same reason. On the other hand, when land was plentiful, young men did not set such store by their inheritance, and the custom seems to have fallen into abeyance. In Bavaria and in north-west Germany where peasants insisted on the indivisibility of holdings throughout the period of land shortage, the social effects were different again, and a wide gulf developed between the landed peasant and the landless labourers.

The colonization of the east introduced a new factor for landless men from other parts of Germany moved eastwards and in various ways helped to alleviate the conditions of the rest. But from the sixteenth century the history of landlordism in east and west diverged: in the west and south the great farms shrank

in size or broke up altogether; in the east the lords of large estates expanded their own farm enterprises and laid increasingly heavy labour services on their tenants. The balance of power was not much altered until the mid-eighteenth century when princes, politicians, and men of letters developed a policy towards the land and attempted to arrest the decline of the peasant class. Thus the "liberation of the peasantry" took place, without any prodding from the victims themselves. It is a strange story.

Dr Haushofer's account of the agricultural revolution between 1815 and the present day is the work of a historian rather than an economist, and a historian, moreover, who favours the now unfashionable biographical approach. But the result is a most refreshing and readable book. The lives of the great men of the agricultural revolution like Albrecht Thaer, Justus von Liebig, and Johann Mendel are sympathetically described and related to those of their contemporaries in the world of literature and politics. These studies of a few outstanding individuals together with some incisive comments from contemporary newspapers and treatises enable the author in a few pages to re-create the climate of opinion of each generation.

It is instructive to observe the influence of England on German agriculture. It was of paramount importance until 1846, when the

French became the model. One of Germany's most influential agricultural textbooks was a comparative study of English and German agriculture by Thaer, for which he received a congratulatory letter from the Board of Agriculture; English breeds of cattle, horses, and pigs were introduced into Germany, and, of course, tile drains and agricultural, particularly harvesting, machinery; Max Eyth spent many years with the agricultural engineering firm of John Fowler of Leeds, and returned home to form a German association modelled on the Royal Agricultural Society. Where German agriculturalists scored over the English was in appreciating at an early stage the value of schools, rural institutes, and universities for promoting and disseminating knowledge. Dr Haushofer's biographies reveal the influence of the Swiss pedagogues and the German doctors of medicine who turned to the study of plant life. Through them agricultural science quickly became a subject which ranked high among academic disciplines.

In one review it is difficult to do justice to three substantial volumes of German agricultural history. But perhaps enough has been said to show their interest for the English reader, and to underline how much they deserve to be translated into English and so to reach a wider public.

JOAN THIRSK

JOURNAL OF AGRICULTURAL ECONOMICS

VOL. XVI, No. 2

DECEMBER 1964

CONTENTS

The Economic Activities of the Ministry of Agriculture, Fisheries and Food <i>Discussion</i>	J. H. KIRK
Some Economic Aspects of Estate Forestry <i>Discussion</i>	N. D. G. JAMES
The Nuffield Devon Farm Project <i>Discussion</i>	S. T. MORRIS
The National Union of Agricultural Workers <i>Discussion</i>	F. D. MILLS
Farm Management and Agricultural Policy	G. B. CLARKE
The Evaluation of Technological Change	K. D. COCKS
The Prospects for Agricultural Self-sufficiency in India	R. P. SINHA
The Organization of Production in the Irrigated Areas of the Sudan	D. S. THORNTON

With Reviews, Abstracts, etc.

Journal of THE AGRICULTURAL ECONOMICS SOCIETY

Published twice yearly, price 21s.

EDITOR: O. J. Beilby, Department of Agriculture and Fisheries for Scotland, St Andrew's House, Edinburgh 1, Scotland.
SECRETARY: G. B. Bisset, Department of Agricultural Economics, University of Reading, 7 Redlands Road, Reading, England.
MEMBERSHIP: £2 10s. per annum.

ETUDES RURALES

REVUE TRIMESTRIELLE D'HISTOIRE, GEOGRAPHIE, SOCIOLOGIE ET ECONOMIE DES CAMPAGNES

publiée par l'Ecole Pratique des Hautes Etudes

Sixième section—Sorbonne

Sommaire du no 16 (janvier-mars 1965)

G. NICOLAS. Problèmes de technique comptable agricole.
J. BLACHE. Essai d'aménagement du travail agricole.
J. MAHO. Modernisation technique des campagnes françaises.
B. CHEVALLIER. Bailleurs et preneurs en Touraine, après la Guerre de Cent Ans.
J. BERTIN. Les conventions de formes.
B. KAYSER. Les résultats de la planification agricole en Bulgarie.
Chronique scientifique
Comptes rendus

Abonnements—4 numéros

France et pays de la zone franc: 33 F. Autre pays: 40 F. Le numéro: 9 F.

Les abonnements peuvent être souscrits auprès de votre libraire habituel ou aux Editions MOUTON et Cie, s.a.r.l., 45 rue de Lille, Paris 7ème. C.C.P. Paris 5067-96

REDACTION: 20, RUE DE LA BAUME, PARIS 8EME



CAMBRIDGE

Essays on Crop Plant Evolution

EDITOR: SIR JOSEPH HUTCHINSON

A survey by a number of authorities of the history of the development of some widely cultivated crop plants. Crops considered are: maize, sorghums, temperate cereals, potatoes, forage grasses and legumes. 16 plates. 50s. net

Monastic Tithes from their Origins to the 12th Century

GILES CONSTABLE

A study of monastic tithes in a period when the whole practice of tithing was radically altered. Professor Constable examines tithing against a background of changes in property relationships, in the theory of tithing, and in the nature of the monastic order. In an appendix he describes nine characteristic cases of tithing, all of which illustrate special points he has made. 50s. net

The Place-Names of Gloucestershire, Parts I-IV

A. H. SMITH

Part I deals with river and road names and with the east Cotswolds; Part II, with the north and west Cotswolds; Part III, with the lower Severn valley and the Forest of Dean. Part IV contains the introduction, bibliography, analyses and index. *English Place-Name Society, Volumes 38-41.* Each 42s. net

The Migrant Cocoa-Farmers of Southern Ghana

POLLY HILL

A major contribution to the economic history of West Africa, showing that for the last seventy years Ghanaian cocoa farmers have successfully operated a form of rural capitalism which is consistent with traditional African social systems. 55s. net

CAMBRIDGE UNIVERSITY PRESS

The British Agricultural History Society

PRESIDENT: R. V. LENNARD

TREASURER: C. A. JEWELL

EDITOR: JOAN THIRSK

SECRETARY: T. W. FLETCHER

Agricultural Economics Department, The University, Manchester 13

Executive Committee: W. H. Chaloner (*Chairman*), Miss Audrey Beecham, G. B. Bisset, A. M. Everitt, G. E. Fussell, J. W. Y. Higgs, W. E. Minchinton, George Ordish, Miss L. Pearson, M. L. Ryder, Miss E. H. Whetham.

The Society aims at encouraging the study of the history of every aspect of the countryside by holding conferences and courses and by publishing *The Agricultural History Review*. Its constitution is printed in Vol. IX of this *Review*, p. 63.

Membership is open to all who are interested in the subject and the subscription is ONE GUINEA due on 1 February in each year. Details may be obtained from the Secretary.

The Agricultural History Review

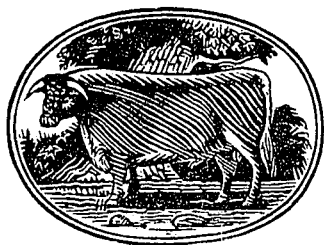
EDITOR: JOAN THIRSK

45 MEADWAY, LONDON, N.W.11

The Review is published twice yearly by the British Agricultural History Society and issued to all members. Single copies may be purchased from the Secretary for 17s. 6d. Articles and letters offered for publication should be sent to the Editor. The Society does not accept responsibility for the opinions expressed by contributors, or for the accidental loss of manuscripts, or for their return if they are not accompanied by a stamped addressed envelope.

✉ Communications respecting subscriptions should be ✉
addressed to the Treasurer, not the Editor.

The AGRICULTURAL HISTORY REVIEW



VOLUME XIII 1965

PART II

*

PRINCIPAL CONTENTS

Scottish Agriculture before the Improvers—an Exploration
by T. C. SMOUT and ALEXANDER FENTON

*

Technological Improvement and Social Change
in South Cardiganshire
by J. GERAINT JENKINS

*

An Account of a Yorkshire Enclosure—Staxton 1803
by BRIAN LOUGHBROUGH

PUBLISHED BY
THE BRITISH AGRICULTURAL HISTORY SOCIETY

THE AGRICULTURAL HISTORY REVIEW

VOLUME XIII PART 2 · 1965

CONTENTS

Scottish Agriculture before the Improvers—an Exploration	<i>T. C. Smout and Alexander Fenton</i>	page 73
Technological Improvement and Social Change in South Cardiganshire	<i>J. Geraint Jenkins</i>	94
An Account of a Yorkshire Enclosure—Staxton 1803	<i>Brian Loughbrough</i>	106
Work in Progress	<i>Alan Everitt</i>	116
Letter to the Editor		125
Reviews:		
<i>The Place Names of Gloucestershire</i> , by A. H. Smith	<i>R. H. Hilton</i>	127
<i>Seasons and Prices</i> , by E. L. Jones	<i>D. J. Schove</i>	128
<i>West Country Friendly Societies</i> , by Margaret Fuller	<i>W. E. Minchinton</i>	129
<i>His Majesty's Spanish Flock</i> , by H. B. Carter	<i>M. L. Ryder</i>	129
<i>The Unfortunate Husbandman</i> , ed. Desmond Clarke	<i>E. R. R. Green</i>	131
<i>The Diary of a Farmer's Wife, 1796-7</i> , ed. Suzanne Beedell	<i>W. H. Chaloner</i>	131
<i>History of British Agriculture, 1846-1914</i> , by Christabel S. Orwin and Edith H. Whetham	<i>T. W. Fletcher</i>	132
<i>Agriculture in Western Europe. Crisis and Adaptation since 1880</i> , by Michael Tracy	<i>J. D. Sykes</i>	133
<i>Land Utilization in Australia</i> , by Sir Samuel Wadham, R. Kent Wilson, and Joyce Wood	<i>L. A. Clarkson</i>	135
Notes and Comments		105, 115
Notes on Contributors		136
Books Received		136

Scottish Agriculture before the Improvers—an Exploration

By T. C. SMOUT and ALEXANDER FENTON

THE story of Scottish agriculture in the centuries between the break-up of the great monastic estates and the dawn of the improving movement is a neglected subject:¹ when historians have paid it any attention, their examination has always been cursory and often polemical, looking down the wrong end of the telescope in order to find examples of 'bad' seventeenth-century practice to contrast with 'good' eighteenth-century innovations.² The first intention of this paper is to plead for (rather than to carry out ourselves) a more intensive and sympathetic investigation of Scottish peasant farming in the social and economic *milieu* of its day: our second intention is to try to explore some of the uncharted country in search of the main trends of the period. No one would wish to deny that the structure of farming was basically unaltered between 1600 and 1700, that it was associated with run-rig and the open fields (usually on an infield-outfield pattern, though capable of wide variation) or that it was technically inferior to the best or even to the average English husbandry of the time. But the universality of an inefficient system does not mean that it was everywhere static—or in decay, as some have suggested—nor was its continued survival throughout the century determined only by ignorance of better things.

I

The factor which has oppressed most commentators on Scottish farming in the seventeenth century is the incidence of severe dearth, the dreadful instance of the so-called "Seven Lean Years" in the 1690's being the example that springs first to everyone's mind.³ There is no doubt that the country did experience sharp alternations of high corn price, accompanied by wide-

¹ We are indebted to Dr Roy Sturges and Mrs R. Mitchison for several helpful criticisms of an earlier draft of this paper.

² This cannot be due so much to the scarcity of sources as to their scattered nature. See G. Donaldson 'Sources of Scottish Agrarian History before the Eighteenth Century', in *AHR*, VIII, 1960, pp. 82-90.

³ In some districts the "famine" was four years in length, in some five years, and in a few six years: generally it affected the crops from 1695 to 1699. The term "Seven Lean Years" was a Biblical image that has frequently misled historians into taking the phrase at its face value.

spread mortality in town and country, and periods of very low price (which have been largely overlooked) when producers had difficulty in disposing of their surpluses. But such vacillations are normal in a society where a high proportion of the population still produces most of its own grain requirements—abundant harvests produce many sellers but few buyers, bad years many buyers but few sellers.¹ In seventeenth-century Scotland this pattern would certainly be confirmed by low yields and high fixed rents largely paid in grain—that is, in so many bolls of oats, bere, and sometimes wheat, in predetermined proportions. Generally 25 or 30 per cent of the average annual harvest was retained for seed, possibly another 30 per cent was handed over to the landowner and either consumed in his household or marketed, and the remainder was either eaten or sold by the tenant.² Thus in good seasons both lairds and peasants were competing in large numbers for a small market: in bad seasons the peasant's margin for sale vanished, and even the laird's might go if full rents could not be met except by the peasant dying of hunger. In really bad years the peasant was reduced to eating part of his seed-corn, and this invariably resulted in a double season of dearth as insufficient was left to put back into the land to give a full crop the following year. Without a complete alteration in the structure of farming and of the whole nature of Scottish society—and this certainly did not take place—some severe famines were only to be expected. Thus stagnation or decay in a system of peasant agriculture cannot be proved merely by a chronic tendency to years of high grain prices, though increasing incidence of high prices over a long period might prove the inability of grain output to keep pace with population. But were the years of high price becoming more frequent? The evidence does not suggest that this was the case. Lythe has shown how, in the sixteenth century, the leaps in price were enormous, especially after 1570. The position was certainly complicated by chronic debasements of the coinage, but the frequency of bad harvests is clear. He identifies from price series and literary sources about seventeen years between 1550 and 1600 in which the harvest failed over a wide area—"each food shortage drove the price of grain and grain products to a peak from which subsequent recession

¹ See J. D. Gould, 'Agricultural Fluctuations in the English Economy in the Eighteenth Century', *Jnl Econ. Hist.*, xxii, 1962.

² Mackintosh's statement in his *Essay on Ways and Means for Inclosing*, Edinburgh, 1729, pp. 59-60 that "the third corn in oats, and fourth in bear" was the average return is broadly supported by other eighteenth-century opinion. Rent was traditionally reckoned at the third corn, and that the two were approximately equal in size is illustrated by an incident in Angus in 1672, when the tenant petitioned to be excused his whole rent as thieves had stolen his seed oats—Scottish Record Office (henceforth S.R.O.), Dalhousie Muniments, 18:721.

was never more than partial."¹ The seventeenth century (see Appendix) began with a period from 1602 to 1630 when years of higher-than-average prices were relatively rare, interrupted by one or two seasons of dearth in the 1620's. Debasement had been stopped by the Union of the Crowns, but, due also to "a combination of better harvests and political stability" food prices were generally less liable to fluctuation.² From 1630 to 1660, natural harvest failure, exacerbated in the last decades by civil war and the presence of an English army of occupation, again produced many years of high price (with some very low ones in the 1650's). It is reasonable to suggest altogether fifteen or twenty seasons in which harvest failure was widespread between 1600 and 1660.

In the next half-century (down to the Union of 1707) bad harvests were rare: prices fell from the high levels of the Civil War and Interregnum, widespread dearth occurred in 1674-5, very severely from 1695 to 1700, and less sharply in 1690—in nine seasons in the east of Scotland at the most generous estimate, though our data do not show local scarcities in the west such as the dearths at Dumfries in 1681 and at Ayr in 1702. Contemporary complaints were almost all of glut, and inability to sell.

Finally, after the Union until 1760, most regions experienced remarkably stable prices, showing a tendency to lift until 1725, and again from 1745, but without more than four seasons of unusually high prices. If these figures mean anything, it is not to support the notion that agriculture was deteriorating. On the contrary, scarcities appear to occur less often and at longer intervals until on the eve of the Agricultural Revolution, which was to destroy the old farming system after 1750, they were a rare phenomenon indeed.

The evidence from imports and exports confirms the trend. It was to the Baltic that Western Europe normally looked to relieve her grain shortages for most of this period, and good statistics of Scottish-Baltic trade are available from the later sixteenth century onwards. The table on p. 76 sets out westward shipments of grain and flour carried in Scottish ships bound from the Sound.³ This table blurs the relationship between years of scarcity and heavy imports, but the correlation was a close one and in cheap years nothing at all was imported. Even at an early date Scotland could clearly feed herself in times of reasonable plenty.

¹ S. G. E. Lythe, *The Economy of Scotland in its European Setting, 1550-1625*, 1960, pp. 15-23, 110-11.

² *Ibid.*, p. 16.

³ *Tabeller over Skibsfart af Varetransport gennem Øresund*, edd. N. Bang and K. Korst, Copenhagen and Leipzig, 1909-45; S. G. E. Lythe, 'Scottish Trade with the Baltic, 1550-1650' in *Economic Essays in Commemoration of the Dundee School of Economics*, ed. J. K. Eastham, 1955.

ANNUAL AVERAGE, IN BOLLS (to nearest 00)

1562-9	3,600	1630-9	5,400
1574-9	7,200	1640-9	4,400
1580-9	3,700	1661-9	200
1590-9	7,300	1670-9	1,300
1600-09	3,300	1680-9	2,000
1610-19	1,600	1690-9	300
1620-9	5,800	1700-9	100

The break in the volume of Baltic imports at mid-century is so unmistakable as almost to suggest these times of plenty had come to stay: in fact it can be partly explained by the partial replacement of the Baltic by English and Irish suppliers. The scattered customs sources of the early seventeenth century indicate that soon after 1600 some ships were returning from England with grain, and at Dundee England became the main source of relief from the famine of 1642, after those of 1622-3 and 1636-7 had been supplied from the Baltic.¹ After the Restoration, when port-books are more plentiful, little or no import is recorded except in one or two isolated years like 1674 when supplies were mainly English or Irish.² Undoubtedly, too, the famine of 1695-1700 was relieved mainly from British sources, bounty returns for 1699 indicating an import of about 26,000 bolls in six weeks, of which only 20 or 25 per cent can be reckoned as Baltic, the remainder being English or Irish.³ In sum, the evidence of imports, while it does not suggest that needs were much smaller in times of famine at the end of the seventeenth century than they had been a century earlier, certainly backs our claim that dearth was occurring more infrequently after 1660. In the long run the need to import was declining significantly.

In a similar way, evidence on the export side points clearly to increasing sales abroad rather than to the diversion of corn from foreign markets to keep up with demand at home. In the second half of the sixteenth century there are few signs of export on any scale even to regions that later became important, but after 1600 grain is sent quite regularly to England and Scandinavia, London alone taking nearly 14,000 bolls in the good year 1625-6.⁴ During the Restoration period little was sent to England due to customs' policy in the south, but Holland emerged for the first time as an important consumer of Moray and Lothian bere, and Scottish grain was even shipped *into* the Baltic, an average of 2,000 bolls a year entering between 1675 and 1685. By now, however, Norway and western Sweden had become the

¹ Lythe, *Scottish Economy*, pp. 219-20; Dundee City Archives: MS. shipping lists of the port of Dundee. We are indebted to the civic authorities for permission to examine these.

² S.R.O. Customs Books (Second Series) E.72.

³ S.R.O. Customs Accounts, E. 73.126.

⁴ Lythe, *op. cit.*, p. 220.

principal customers, and the grain trade provided the normal means of financing most of the wood trade, Gothenburg alone taking 10,000 bolls in 1667 and 22,000 in 1685.¹ The latter year was clearly most exceptional, plentiful supplies at home contrasting with famine in Scandinavia: the port-books show an export of 103,500 bolls from Scotland north of Fife—a remarkable figure compared to known imports to Scotland in time of dearth.² While the later 1690's saw a virtual cessation of this trade, it revived again after 1700 and especially after 1707. The table below states the export of grain from Scotland to beyond Britain from 1707 to 1752.³

ANNUAL AVERAGE IN BOLLS (to nearest 00)

1707-12	55,900	1733-7	71,200
1713-17	95,300	1738-42	53,900
1718-22	115,000	1743-7	79,500
1723-7	59,200	1748-52	98,000
1728-32	40,300		

After 1707, this annual exported surplus was supplemented once again by considerable consignments to England, Chalmers holding that the perceptible rise in grain prices after the Union was entirely due to the admission of Scottish corn into the English market.⁴ It is hard to escape the conclusion that in the century between 1650 and 1750 far more grain was sent out of Scotland in time of plenty than ever came in in time of dearth, and that this reflected a substantial improvement in domestic supplies.

In the later seventeenth century there was a striking change in government policy away from protecting the grain consumer and towards positive protection for the producer. This became obvious almost at once after the Restoration, and reached its culmination firstly in the prohibition of imports (except by express Privy Council permission in times of high price) in 1671, secondly in the Corn-export Bounty Act of 1695, and thirdly in the extension of the bounty system after the Union by an Act of the Westminster Parliament in 1707.⁵ Now it might be argued that the shift from imports to exports was rather a consequence of this policy than of domestic changes in corn supply, but such a view would be hard to sustain. Traditionally, the Convention of Royal Burghs was the consumers' mouthpiece, since it was the

¹ I. Lind, *Göteborgs Handel och Sjöfart 1637-1920*, Gothenburg, 1923.

² S.R.O. Customs Books (Second Series) E. 72.

³ G. Chalmers, *Caledonia* (Paisley edn, 1888), III, p. 33. The same source suggests that imports from all sources did not average more than 25 bolls a year until the dear years around 1740.

⁴ *Ibid.*, p. 34.

⁵ *Register of the Privy Council of Scotland*, Third Series, III, pp. 331-2; *Acts of the Parliaments of Scotland*, IX, p. 458; *Statutes*, 6 Anne 29, ch. 13.

urban communities that were most nearly divorced from production. Before 1650, the Convention had shown itself on many occasions to be in favour of free import and restricted export. Between 1660 and 1680, this body suffered a change of heart, and came to favour free export, even taking the lead in persuading Westminster to extend the bounty system after 1707.¹ Had consumers suffered under the new policy, not only would burghal prices have risen instead of falling after 1660, but the Convention would certainly have remained an advocate of free import. As it happened, their conversion, like the general conversion of official opinion, was a consequence and not a prime cause of more grain being offered for sale abroad.

The argument as we have developed it so far indicates not a *per capita* deterioration in home food supplies, but a situation in which in the long run dearth was tending to decrease, imports were declining, exports were increasing, and contemporary policy adjusting itself to new circumstances. Scotland, in other words, was becoming rather better fed from domestic supplies. The next question is, how far could this be attributed not so much to a real *per capita* increase in Scottish production as to an improvement in marketing?

II

Certainly one of the most striking changes in the seventeenth century appears to be an increase in the quantity of agricultural goods marketed rather than consumed on the spot—and this comment applies to livestock as well as to grain. The decline of the landowners' private followings of retainers who had been clothed and fed at baronial expense and used in feud and civil war throughout the Lowlands before the end of the sixteenth century may partially account for this. As Dr I. F. Grant puts it—"wealth was spent rather in a display of luxury and elegance than in maintaining a following . . . the modern dining room was at this time taking the place of the baronial hall."² The displaced may have emigrated or found a foothold on the land, but others went to swell the growing urban communities of Central Scotland. Edinburgh and Glasgow both appear to have doubled or even trebled in size between 1560 and 1700 and went on increasing to 1750 and beyond, while new small communities mushroomed along the Forth—places like Prestonpans, Bo'ness, Alloa, Wemyss, and Methil, all based on non-agricultural activities such as coal-mining, salt-panning, and shipping. Their rate of growth often startled contemporaries: "all the townes that were built in the last age are very much increased in buildings by what they were then,

¹ *Records of the Convention of Royal Burghs*, ed. J. D. Marwick, 1866–80, IV, pp. 23, 48, 72.

² *The Economic History of Scotland*, 1934, pp. 160–1.

but severalls are built wher ther were non in the last age: this is most remarkable upon our firths and rivers. Ther was a Gentleman died since the year 1660 who remembered that ther was but one house wher now there is the town of Borrostonesse, Grange Pans, Bridgeness, and Cruss-about-pans which make now two large parishes."¹ The need for food in an area like this must have exceeded the local ability to produce, and it is hard to see how this urban development could have taken place without a corresponding growth in imports, an increased incidence of dearth, or a consistently upward trend in prices, unless more food had been reaching these towns from inside Scotland.

At the same time, the lairds who had disbanded their retinues found themselves with a larger and more regular surplus for sale. One sign of this was in the greater diffusion of country trade outside the royal burghs and, to a very striking degree after 1660, outside the burghs of barony and regality as well. The following table, adapted from A. R. Ballard's article published as long ago as 1916, of Acts of Parliament authorizing markets and fairs shows this very clearly.²

	MARKETS AUTHORIZED IN		
	ROYAL BURGHS	UNFREE BURGHS	NON-BURGHAL SITES
1517-70	7	25	1
1571-1660	11	75	10
1660-1707	1	51	246

The astonishing increase in rural trading centres after the Restoration probably reflects the declining power of the royal burghs to obstruct a change that would otherwise have come about earlier and more gradually. Still, no one seeks the right to set up a market unless he has a surplus to sell, and the creation of markets on this scale must have done a great deal to facilitate the disposal of such surpluses in the second half of the century. Many of the new markets were for stock—Skene of Hallyards in 1663, for example, recommended Dunblane on Whit Monday as best for buying cattle for fattening, Carnwath on the 24th of June and Peebles on the 11th of June as best for lambs, Edinburgh on Trinity Monday as best for milk cows and Linlithgow on Magdalene Day for a variety of animals. A few were for victual, as at Minigaff in 1684 where the local mossmen bought meal and malt on Saturdays. The Kelso market was primarily for wool and served a large area. Many more were highly miscellaneous in character, like the two annual

¹ National Library of Scotland, MS. 33.5.16, Sir Robert Sibbald, "Discourse anent the Improvements may be made in Scotland. . ." (henceforth N.L.S. Sibbald's "Discourse"), f. 12.

² A. Ballard, 'The Theory of the Scottish Burgh', *Scottish Hist. Rev.*, XIII, pp. 16-29.

markets at Portree on Skye, selling horses, cows, sheep, goats, hides and skins, butter, cheese, fish, and wool, or the four annual Wigton Fairs selling horses, cattle, and cloth.¹

There seems to be little indication here of wholesale trade in grain, yet it is first after 1660 that evidence grows for a much augmented coastal traffic in corn between the producing areas of the north and the consuming centres of the Forth. The merchants of Edinburgh, and also those of Dundee, Montrose, and Aberdeen, played a big part in this from Angus to Caithness; their method of contracting with landowners for their annual crops and grain-rents and shipping it south themselves perhaps by-passed local markets. In the wars against France after 1689 the victual ships were a lifeline that enemy privateers struck at immediately, and anxiety in the contemporary press is a measure of the reliance of the growing towns of the south on this source of supply.²

It may fairly be concluded from this that in certain regions best placed for the market there was in the seventeenth century an important increase in farming for external sales at the expense of subsistence farming for baronial consumption. This was obvious in the cattle trade, where the Union of the Crowns had permitted such a growth in droving for the London market that the value of black cattle sent to England sometimes accounted for more than half the total exports to that country, and in some years already touched the figure of 60,000 head.³ Galloway was probably the area most closely affected, as it was here that Dunbar of Baldoon set up a ranch for 1,000 cattle and a group of landowners were agitating for fixed and defined drove roads in the 1680's.⁴ It is perhaps also true of the wool trade, for there are signs that the pacification of the Borders after 1603 was followed in the eastern Border counties by clearances for sheep farming on the classic pattern. It is certainly true of the grain trade on coastal estates on the east side of the country, where examination of rentals and other papers shows that there was hardly a considerable family on such lands north of the Tay which was not shipping grain or meal either coastwise or abroad: the Earls of Glamis, Kincardine, Seafield, Buchan, Panmure, and Sutherland may be taken as typical of this group.⁵ It also was obviously true of estates in the immediate region of the larger burghs, as at Tranent where the "great trafique of mercheandis" was

¹ Alexander Fenton, 'Skene of Hallyard's Manuscript of Husbandrie', AHR, xi, 1963, p. 68; A. Symson, *A Large Description of Galloway*, Edinburgh, 1823, pp. 30, 34-5; S.R.O., M.P. bundle 259:2, letter from Alexr. Baird and Robt. Turnbull, 21 April 1688; M. Martin, *A Description of the Western Isles of Scotland* (Glasgow edn, 1884), p. 205.

² T. C. Smout, *Scottish Trade on the Eve of Union*, Edinburgh, 1963, pp. 70, 143, 208.

³ P.R.O. Customs, 3, 1:7.

⁴ A. Symson, *op. cit.*, pp. 41, 81.

⁵ S.R.O. Dalhousie Muniments 20: 4-46; Smout, *op. cit.*, pp. 74-5, 208, 211, 272.

put forward as the main stimulus to better farming in 1627.¹ Of course, it is not suggested that all Scottish farming before had been solely for local consumption—the presence of towns earlier and the obvious differences in natural endowment between upland and lowland areas always presuppose a good deal of trade: but the extension of this agrarian trade, both in quantity and horizons, must be considered a significant step towards the emergence of a modern agricultural economy in Scotland.

III

We have, therefore, indications of better marketing facilities and of more produce being marketed. How far is there evidence for actual *per capita* increases in grain and cattle production, and what might have caused them?

On the grain side alone, one possibility is that the Scottish weather improved over a long period, and thus gave higher average annual harvest yields. Unfortunately there is little evidence in meteorological history that can be called decisive. Obvious famine struck when climatic conditions at seedtime or harvest were worst, but it cannot follow that fewer scarcities are a sign of better weather, because moderately bad conditions that would have caused dearth in the sixteenth century might have been more easily overcome in the seventeenth century by improved marketing or better farming. It is perhaps worth mentioning that the very bad winter of 1683–4 was not followed by serious dearth in Scotland in 1684–5, although it certainly was over a large area of the Continent, and again in the early 1690's Scotland remained substantially immune from the dearths that hit other countries. Long-term changes in the climate might very well have remarkable economic effects, but in the absence of very precise statistical data it seems fruitless to speculate.

Another possibility is that the population of Scotland, after important increases in the sixteenth century, actually fell during the seventeenth, and therefore that output of corn and cattle per head went up simply because there were fewer mouths to feed. Despite what we have said about the growth of urban communities in the Forth–Clyde valley, such an overall decline is feasible. Undoubtedly emigration from Scotland was astonishingly heavy at certain periods while at other times war and famine may also have contributed towards a serious loss of population. Mortality and emigration in the famine of the late 1690's were clearly very high; contemporaries spoke of parishes in which one-third or even one-half of the inhabitants had either died or fled, and even if the overall picture was nothing like as bad as that,

¹ *Reports on the State of Certain Parishes in Scotland . . . 1627*, Maitland Club, 1835 (henceforth *Reports of 1627*), p. 135.

it would be very surprising if population did not fall markedly over the decade 1690 to 1700.¹ Certainly some of the complaints of glut of the first years of the eighteenth century related superfluity of corn to a decline in the numbers of tenants to consume it, and the lengthening of leases on the Panmure estates—from an average of four years in the 1660's to one of 14 years in the 1700's—may have been related to the difficulty of attracting new tenants to fill the gaps left by the dead and departed.²

Nevertheless, the postulation of a long-term decline in population, like the one of a long-term improvement in the weather, remains in the realms of speculation, with no direct evidence to prove it and the word of at least one contemporary, Sir Robert Sibbald, to go against it. To this Fifer, writing in 1698, nothing was more obvious than “the great increase of people bejonde what was in the last century.”³ We would also find it hard to accept that, except in the short run, it was depopulation that was accounting for the greater ability of Scotland to feed herself and to send more abroad.

There remains the possibility that improved farming or an increase in the area under cultivation was the prime cause of any *per capita* increases that did take place: we believe this was the case, and can produce evidence that in certain areas most in touch with the market agricultural practice was already changing in a way that must have led to increased efficiency and higher output. But we would stress that the movement appeared to be very limited both in its scope and in the geographical areas affected.

Perhaps the most important of the innovations sprang from the realization at the turn of the seventeenth century of the value of liming. It has generally been assumed that the application of lime to the acid soils of Scotland was an improvement first properly appreciated in the period after 1750: it would be nearer the mark to say that the later eighteenth century was the period when liming became universal and first penetrated those areas inaccessible to the market or to limestone quarries, or to both. In fact in certain places, the use of lime first produced spectacular results in the seventeenth century.

The most detailed evidence for this comes from the Lothians as early as 1627. In that year the Church carried out a survey of certain parishes in the Lowlands, and a large majority of the returns in Midlothian and East Lothian contained explicit reference to the new habit of liming and its beneficial consequences in increasing yields. Thus, for instance, in Borthwick parish, Midlothian, the rents of Wester Halkestoun had been raised from

¹ Smout, *op. cit.*, pp. 90–5, 244–9.

² S.R.O. Dalhousie Muniments, 18:387–97, 440–30. These tacks from as early as 1660 allow for compensation to tenants who have improved the land if the lease is not renewed.

³ N.L.S. Sibbald's “Discourse,” f. 11.

40 to 200 merks primarily as a result of liming, and at Neatone parish the farms could not continue to pay their victual rents "except they be gooded with lime." In East Lothian, money rents at Newhall, Yester, had risen in "twenty years or thereabout" from 200 to 1,040 merks: "if they wanted the liming they would hardly be worth the half:" at Longniddrie, Seton, and Tranent total grain rents rose from 28 to 40 chalders, from 21 to 32 chalders, and from 32 to 40 chalders respectively, in each case due to the application of lime. Not all results were as beneficial as that, for in the hands of the inexperienced it was possible to wreak havoc by overdoing it. Sir James Dundas of Arniston had used lime to great effect, but he warned the surveyors in 1627 that the practice "except the same be used with great discretion, may import no little harm and betime make the land to become altogether barren and yield no increase, whereof a great many in divers parts of this kingdom do already find the doleful experience, and the said Sir James as one through this occasion is forced to let a part that was wont to be his best fatland lie ly."¹

Ayrshire was another region where liming was practised early and here brought benefits especially to the pastoral land. According to Timothy Pont in 1604, the county was "fertile in corn and store, being of a deep fat clay soil much enriched by the industrious inhabitants liming their grounds." His comment receives confirmation in a testament mentioning limed ground in Ayrshire in 1616.²

In the second half of the century liming is frequently mentioned by writers on agricultural improvement, all of them apparently writing in a Lothian or at least in a Forth context. Skene of Hallyards recommended liming before peas on the infield: Lord Belhaven in 1699 implied that liming of the outfield was common, and Sir Robert Sibbald in 1698 called it the "usual improvement" by which yields were increased, though he also warned against it "wasting the strength of the ground" and poisoning the fish in neighbouring streams. There seems to be no clear evidence of the use of lime north of the Forth, though it seems intrinsically unlikely that the enterprising lairds of the north-east would have ignored it if they had had the opportunity. Shortage of coal to manufacture lime was perhaps the obstacle, though peat was already being used in Galloway to make building lime from seashells.³

¹ *Reports of 1627*, esp. pp. 41, 92, 107, 135, 144.

² T. B. Franklin, *History of Scottish Farming*, 1952, p. 114; George Robertson, *Rural Recollections*, Irvine, 1829, p. 616.

³ Fenton, *op. cit.*, p. 67; [Lord Belhaven], *The Countrey-Man's Rudiments*, Edinburgh, 1699, pp. 16-18; N.L.S. Sibbald's "Discourse," f. 13.

Where liming was carried on, it was generally to allow the cultivation of more outfield more frequently. Sir James Dundas in 1627 said that by this "the whole bounds of the said lands that can be made arable are riven out, manured, and sown, and without the benefit of [limestone and coal] the half of these lands as are now gooded, laboured, and sown would of force lie by as in former times, as other rooms do, that has not the same or some other benefit of the like nature." Other observers commented on a general increase of land coming under the plough. In 1704 the Earl of Cromartie claimed that "one fourth of the Pasture land has within these fifty years turned to Tillage," and an anonymous writer of the same year said "there was less tillage [around 1670] than now there is." Sir Robert Sibbald spoke almost in terms of a cultivation explosion around the villages: there was "a vast deal of ground now tilled and laboured that before was pasture," and whereas formerly rural settlements had "only a small parcell of ground laboured, and that was fenced in with a ditch and dyke that the beasts might not come at it," now "for a good distance from towns and villages there is little to be seen but laboured land."¹

Liming was not the only means by which an extension of the farmed area came about. Already we hear of occasional reclamation schemes to take in the waste. At Loth in Sutherland an arterial drain was cut to free a large area of land for cropping; at Irvine in 1691 a minister who had suffered exile in the Netherlands drained another substantial tract of marshy land; and Inchaffray Pow in Perthshire had an Act of Parliament facilitating drainage all to itself in the seventeenth century. Sibbald told of a "gentleman who in my time within a few miles of [Edinburgh] made of his share of a common twenty chalders of victual and have meadowland, corn fields, and grass where his predecessor made not (as he told me) above fifty merks Scots of profit."²

It is also around the end of the seventeenth century that we first hear of "enclosures" to keep stock in rather than to keep them out. On the traditional old Scots Farm the arable area was surrounded by an earthen dyke, as described by Sibbald in the passage quoted above, and the animals roamed about on the rough grazing or common outside this "head dyke" until the end of summer, when they were allowed in to graze on the stubbles: enclosures in any other form were non-existent. Now, however, we begin to

¹ *Report of 1627*, p. 44; Anon., *A Speech in Parliament concerning the Exportation of Wool*, Edinburgh, 1704, p. 4; Anon., *A Speech without doors concerning the Exportation of Wool*, Edinburgh, 1704, p. 4; N.L.S. Sibbald's "Discourse," f. 13.

² J. A. Symon, *Scottish Farming Past and Present*, 1959, p. 101; George Robertson, *Topographical Description of Ayrshire*, Irvine, 1820, p. 180; *Acts of the Parliaments of Scotland*, x, p. 67; N.L.S. Sibbald's "Discourse," f. 25.

hear of a different practice. Thomas Kirk, in his abusive *Modern Account of Scotland* of 1679, said that Scotland was "freed from the charge and incumbrance of enclosures" but admitted that "in many places you may see half a rood of land divided by an earthen bank into many different apartments according to the quality of the beasts that are to possess them." What he saw in the Lothians was perhaps more accurately described by Taylor in 1705 who also described the arable land as open and the meadowland near Edinburgh as "very inconsiderable, its generally enclos'd with a mud or stone wall and goes by the name of a park, but is rather a pasture for cattle . . . those we saw containing but few acres of ground." In the works of Donaldson (1697) and Belhaven (1699) both writers evidently thought of enclosures solely in terms of stock: the latter recommending no more than a small paddock on the outfield in which to keep horses.¹

In Galloway and the south-west, where the market influence of the English cattle trade was likely to be most stimulating, we hear of a really large "park" for cattle set up by Sir David Dunbar of Baldoon before 1684: it enclosed three square miles of good grass, grazed 1,000 beasts winter and summer, and was said to be the first of its kind in the area. Already at that date his example had been followed by the Earl of Galloway, Sir William Maxwell, Sir Godfrey McCulloch, Sir James Dalrymple, the Laird of Logan, and others. Forty years later the spread of this type of enclosure throughout the south-west was to lead to the famous riots of the 'Levellers', but evidently the movement was not yet generalized enough to arouse widespread agrarian resentment of this nature.²

It needs to be stressed again that all these improvements were very limited both in the areas they affected and in the repercussions they had on the structure of farming. It is easy to find estates even in fertile areas in close touch with the market where grain yields were not improved throughout the century—at least if the stagnation of rents in kind is any guide. Thus at the Mains of Panmure in Angus rents were unvaried from 1612 to 1700, and on the Barony of Belhelvie in Aberdeenshire unchanged from 1662 to 1704.³ Similarly the enclosures were very scattered, usually very small, and never seem to have comprehended enclosure of the arable or subdivision of the open fields.

¹ *Early Travellers in Scotland*, ed. P. Hume Brown, Edinburgh, 1891, p. 254; J. Taylor, *Journey to Edenborough*, Edinburgh, 1903, p. 99; James Donaldson, *Husbandry Anatomized*, Edinburgh, 1697, pp. 68-9; Lord Belhaven, *op. cit.*, pp. 23-5.

² A. Symson, *op. cit.*, pp. 41, 81; R. Chambers, *Domestic Annals of Scotland*, Edinburgh, 1859, II, p. 367; III, pp. 152-3; Henry Hamilton, *An Economic History of Scotland in the Eighteenth Century*, Oxford, 1963, pp. 81-2.

³ S.R.O. Dalhousie Muniments.

IV

The question now arises as to why, given these trends towards increased farming for profit, improved marketing, and limited gains in agricultural efficiency, improvement did not go further. Why did it not result in still greater technical efficiency, and in that subdivision of the open fields by dykes and enclosures that was to be the hall-mark of the agricultural revolution in late eighteenth-century Scotland? Why did virtually every English traveller before the Union and for several decades afterwards still have cause to think Scottish farming practice backward compared to that of his own country?

The backwardness of Scottish farming must ultimately be attributed to the conservatism of the lairds, on whom the investment decisions regarding the improvement of the lands rested. To a high degree this conservatism is no doubt explicable in terms of the ignorance and self-satisfaction of the landowners, who saw no reason to disturb the timeless traditions of tenure and cultivation, were content with their income from the land, and unable to think in terms of dynamic expansion or dramatic innovation. At the same time this conservatism was reinforced and partly justified by the continuing military basis of land tenure in some parts of the country and, after 1660, by low prices for agricultural produce which made the prospects for heavy capital investment poor.

The weak rule of the central government is probably as important as any other factor. From the purely economic point of view, the most obvious moment at which to have begun an agricultural transformation would have been in the second half of the sixteenth century. In this period of rapidly rising grain prices, and therefore of larger profits and higher rents, capital accumulation ought to have been easy except on estates where rents were fixed. The redistribution of monastic lands would also have made an opening for a break with old traditions, and, assuming a shortage of food, the stimulus to maximize efficiency in areas close to the market should have been considerable.

The landowner's viewpoint, however, was not a purely economic one. He was primarily interested in the maintenance of his personal power, and as the Lowlands and Southern Uplands were still in the grip of periodic anarchy and endemic feud until after 1600, personal power might be maintained more effectively by a land system aimed at keeping the maximum number of dependents on the estate, supporting themselves and producing a small surplus for the retainers in the castle, than by a system aimed at maximizing efficiency at the expense of personal dependence.¹ It might even be easier to get

¹ Even after 1600 the tradition of feud was slow to end. Cattle raiding in the Southern

rich by robbing your neighbour by force of arms than by patiently building up an improved estate, and in any case it was no use having economic power unless it was backed by the requisite spending on defence. This political instability also strengthened the laird's other natural inclination to spend rather than to save. The gains from conspicuous consumption were immediate but enjoyable, and they were a demonstration of power that would in itself tend to add to that power, whereas the gains from investment in enclosure were long-term and probably illusory if your neighbour was in a stronger military position than yourself.

During the seventeenth century, stronger government in the Lowlands and Uplands finally did away with the military justification of the land tenure system though in the Highlands it was to persist until after 1745. This, of course, did not happen quickly or uniformly: the tradition of armed retainers took time to die, and a resurgence of anarchy accompanied the warring factions of the Civil Wars. Nevertheless, especially after 1660, when raid and feud were becoming things of the past over most of the country, the need for the landowner to base the land system on anything other than economic expediency evaporated. Why then did no thorough reorganization come about in the best-placed regions? After the Restoration the Scots showed themselves less conservative and more interested in escaping from agricultural stagnation. Acts of Parliament to encourage better husbandry were numerous after 1660, culminating in the two well-known Acts of 1695 which made it easier for landowners to divide commons and to sort out land lying runrig for the purpose of enclosure without recourse to the private Acts that were necessary in England when enclosure involved any measure of disagreement between interested parties.¹ At the same time in the 1690's, the first published Scottish tracts on how to improve farming methods appeared. Yet the fundamental agricultural change that might have taken advantage of this permissive legislation and technical advice was delayed for many years.

A glance at the price statistics may suggest one reason why wider reorganization of agriculture was not attempted. From 1650 to 1670, victual prices fell sharply, and recovery from the new low levels was slight before the great famine. Contemporary complaints were all of glut. Thus in 1681 it was complained before Privy Council that "this victual, which before gave

Uplands was still common in the first quarter of the century, and the Civil Wars saw the resurgence of the private bands: it was only after 1660 that landowners everywhere abandoned the tower-house and felt safe to inhabit undefended houses.

¹ *Acts of the Parliaments of Scotland*, VII, pp. 263, 575-6; VIII, pp. 295, 488, 494; IX, pp. 452, 462.

a good rate *comunibus annis*, and so noblemen and gentlemen, who had victual rent, were able to leave and keep their credit, is now become almost a very drug."¹ In 1701, on the morrow of the great famine, William Patterson observed that "for several years before the last five, corn was extreme cheap and low, even so as to discourage both the raiser and the heretor," and in 1706 David Black said the abundance and plenty of grain made it so cheap that heretors and labourers may be the first losers, yet the nation in general are gainers." That was an urban consumer's viewpoint. A more heartfelt *cri du cœur* came from one of the northern landowners who produced the surplus: "we are yearly improving our landes to produce more and more grain (but) . . . unless we alter our methodes or fall on some nieu wayes of export, our cornes will become such a drug on our handes that we shall never be able to pay our publick dues."²

Price series for the products of animal husbandry (beef, wool, tallow, and hides) are lacking, but from the general complaints of writers in the last decade before Union it would not appear that they offered much incentive to swing agricultural production from grain to stock, or to encourage fundamental changes in districts already given over to pastoral husbandry. The depth to which wool prices had sunk was put forward as the main justification for allowing the export of wool in 1704, and even the cattle trade to England appeared to be seriously affected by low prices, high dues, and restrictions on autumn marketing.³

In this environment, the failure to undertake more basic agricultural change becomes easier to understand. In an economy where a high percentage of the population were producers, even a small glut engendered by better marketing facilities and limited improvements in efficiency could produce a large fall in price: this did not necessarily prevent all further attempts to increase output, but it was likely to discourage them because capital accumulation became harder and returns smaller—and capital was already desperately scarce in seventeenth-century Scotland. A more economically minded or technically alert landed society might have achieved the necessary saving by cutting the costs of production, but it was hard to see how this could be done without displacing the tenantry, and a numerous tenantry was still in itself regarded as one of the main assets of the estate. Alternatively, it

¹ *Register of the Privy Council of Scotland*, Third Series, VII, p. 670.

² [William Patterson], *Proposals and Reasons for Constituting a Council of Trade*, Edinburgh, 1701, p. 60; [David Black], *Essay upon Industry and Trade*, Edinburgh, 1706, p. 18; *Seafield Correspondence*, Scottish Hist. Soc., 1912, p. 415.

³ Smout, *op. cit.*, p. 213; Anon., *A Speech in Parliament concerning the Exportation of Wool*, Edinburgh, 1704; Anon., *A Speech without doors concerning the Exportation of Wool*, Edinburgh, 1704.

might have financed change by cutting down on personal expenditure: such a thrifty reaction was highly improbable in a society in which prestige depended on a high level of conspicuous consumption, particularly when low prices meant that obvious or immediate gain was unlikely. All improvements before the Union were limited to those that neither demanded much capital nor upset the social structure of the farm. Long-term projects involving subdivision of the open fields and expensive levelling and straightening of ridges, drainage, and displacement were generally eschewed as much from economic and social considerations as because of the conservatism of the lairds.

The seventeenth-century situation, then, was one in which agricultural change was limited by a number of factors, and not least by the restricted market it was able to serve both on the local and national level. The agricultural revolution could come about in the eighteenth century only after new markets had been discovered and developed. In 1776 Adam Smith was to describe the rise in the price of cattle as the most beneficial consequence of the Union of Parliaments, which had finally opened the English market to the Scots on the same terms as their English competitors.¹ Such a rise, most notable after 1745 when the Highlands had finally been pacified and when rising population and incomes in England were making their mark, led to the introduction of turnip rotations, subdivision of fields, convertible husbandry, and all the paraphernalia of the new farming. There was also a small but perceptible rise in Scottish grain prices in the first generation after 1707 which some observers also attributed to the opening of markets in England. The gain was perhaps too small, however, to provide real encouragement until the upward trend was resumed more steeply in the second half of the century, under the combined pressure of population increase and extended urbanization within Scotland. This new facility to make profits more easily from both stock and grain, combined with changes in the entail law in 1770 to assist borrowing for enclosure, created an environment highly favourable to reorganization, and in the fifty years spanning 1800 the old Scottish way of farming completely disappeared in the Lowlands.

The early experiences of some of the first post-Union improvers confirm how little headway could be made in a country where demand was slack. Cockburn of Ormiston, who injected capital from his private income and was wild with contagious enthusiasm for enclosures, turnips, and new rotations, failed to make a profit himself and certainly failed to convert his neighbourhood. Many such men—even Grant of Monymusk is not immune from the stigma in his early days—were rich men playing at farming, and

¹ *Wealth of Nations* (Everyman edition), I, pp. 201–5.

their experiments had little relevance to the ordinary farmer.¹ Not until a generally expanding market put money into the pockets of the farmer and the landowner for the first time since the late sixteenth century could there be a basic change in the structure of farming. Not until Scottish farming was found so inadequate that imports revived on a scale never before known was its structure transformed. Not until then did the general farming community (as opposed to a few enthusiasts) become really contemptuous about old ways. The peasant agriculture of the open fields remained for so long because there was no practical alternative. Would it be wrong to suggest that it served the community in its own day and in its own social and economic environment as well as any form of farming has ever served Scotland?

¹ *The Letters of John Cockburn of Ormiston to his Gardener, 1727-1744*, ed. J. Colville, Scottish Hist. Soc., 1904; *Monymusk Papers*, ed. H. Hamilton, Scottish Hist. Soc., 1946.

APPENDIX: EAST SCOTTISH BREAD AND GRAIN PRICES, 1600-1750²

	<i>Edinburgh wheat bread</i>	<i>Stirling oats</i>	<i>Fife oats</i>	<i>Haddington oats</i>	<i>Aberdeen oats</i>	<i>Fife bere</i>
1600	16	0. 2.0				
1	16	0. 2.0				
2	12	0. 2.6				
3	16	0. 2.0			3. 0.0	
4	16	0. 2.6				
5		0. 3.0				
6	16					
7		0. 2.8				
8		0. 3.0				
9		0. 2.6				
1610	18	0. 2.6				
11		0. 2.6				
12	13					
13	14	0. 3.4				
14		0. 2.6				
15		0. 3.4				
16		0. 3.0				
17	14	0. 3.4				

² Column 1. Wheat bread in Edinburgh: weight of town bread in ounces for one shilling Scots. Fixed by burgh authorities. Source: *Extracts from the Records of the Burgh of Edinburgh*, ed. M. Wood, H. Armet *et al.*, 1868-1954; column 2. Oats in Stirling: price in lib Scots of Dryfield oats per peck. Fixed by burgh authorities. Source: *Extracts from the Records of the Burgh of Stirling*, Scottish Burgh Record Society, 1888-9; column 3. Oats in Fife: price in lib Scots per boll. County fiars. Source: Pamphlet kindly made available by Professor Jacob Viner; column 4. Oats in Haddington: price in lib Scots per boll. County fiars. Source: *Transactions of the Society of the Antiquaries of Scotland*, 1; column 5. Oats in Aberdeenshire: price in lib Scots per boll of great oats without the fodder. County fiars. Source: *Miscellany of the New Spalding Club*, 11; column 6. Bere in Fife: price in lib Scots. County fiars. Source: as column 3

	<i>Edinburgh wheat bread</i>	<i>Stirling oats</i>	<i>Fife oats</i>	<i>Haddington oats</i>	<i>Aberdeen oats</i>	<i>Fife bere</i>
1618	14	0. 3.4			3. 6.8	
19	16	0. 2.0			2.13.4	5. 6.8
1620	20	0. 2.0				5. 6.8
1	13	0. 2.8				9. 0.0
2	11	0. 3.0	6.13.4			10. 0.0
3	9	0. 3.4	7. 0.0			10. 0.0
4	13	0. 2.6	4.13.4			5. 6.8
5	13½	0. 2.6	4. 6.8			5. 6.8
6	16	0. 2.0	4. 6.8			5. 0.0
7	16		4. 6.8			5. 6.8
8	15	0. 2.0	8. 0.0		6. 6.8	10. 0.0
9	14	0. 2.6	7. 0.0		5. 0.0	8. 0.0
1630	10	0. 3.0	8. 0.0		3.13.4	9. 6.8
1	12½	0. 2.8	4. 6.8		3. 0.0	5. 6.8
2	11	0. 2.8	4. 0.0		4.10.0	5. 6.8
3	12	0. 2.8	6.13.4			8. 0.0
4	13	0. 3.4	7. 0.0			7.13.4
5			8. 6.8	6. 0.0		9. 6.8
6	9	0. 2.8	5. 6.8	5. 6.0		6. 0.0
7	12	0. 4.0	9. 0.0			10. 0.0
8	14	0. 3.4	4. 6.8			5. 6.8
9	14	0. 2.8	3.13.4			4. 6.8
1640	14	0. 2.8	5.13.4	8. 0.0		6.13.4
1	11	0. 3.4	7. 6.8	7. 0.0		8. 0.0
2	11	0. 3.4	7.13.4	6. 0.0		9. 0.0
3	13	0. 3.4	5. 0.0	5. 0.0		6. 0.0
4		0. 3.4	5. 0.0	6. 0.0		6. 0.0
5	14		4. 0.0	3. 0.0		5. 0.0
6			4. 6.8	3.10.0		5. 6.8
7	10	0. 4.0	4. 0.0	6. 6.8		5. 0.0
8	8		5. 0.0	8. 0.0		6. 0.0
9	8	0. 6.8	9.13.4	8. 0.0	7. 0.0	10. 0.0
1650			10.13.4	11. 0.0	6. 6.8	10.13.4
1			9. 6.8	10.13.4	6. 0.0	11.10.0
2	10		8. 0.0	8.10.0	6.13.4	11. 0.0
3	12½	0. 6.8	3.13.4	4. 6.8		4.10.0
4	15		4. 0.0	2.13.4		4.13.4
5	14		3. 6.8	3.13.4	4. 3.4	5. 0.0
6	13		4. 0.0	4.13.4	3.13.4	4. 6.8
7	14		3.13.4	4.13.4		4. 3.4
8	9		5. 6.8	6.13.4		6. 0.0
9	8		5. 6.8	6.16.0		6. 0.0
1660	9½		5. 6.8	6. 0.0		6. 0.0
1	9		5. 0.0	5.13.8		6. 0.0
2			3.13.4	4.15.0		5.13.4

	<i>Edinburgh wheat bread</i>	<i>Stirling oats</i>	<i>Fife oats</i>	<i>Haddington oats</i>	<i>Aberdeen oats</i>	<i>Fife bere</i>
1663	10	0. 1.10	4. 0.0	4. 6.8		5. 6.8
4	12½	0. 1.10	2.10.0	3. 0.0		3.13.4
5			2.13.4	3.13.4	3.13.4	3. 0.0
6	12½			4. 0.0	4. 0.0	
7	14	0. 2.6		3. 8.0	5. 0.0	
8	15	0. 2.1	3. 0.0	3. 0.0	3. 6.8	3.13.4
9			3. 0.0	3.13.4	3.13.4	4. 6.8
1670	14½	0. 2.0		4. 6.8	4. 6.8	
1				5.14.0		
2	14½	0. 2.6	3.13.4	4. 0.0		4. 6.8
3	14	0. 2.6	3. 6.8	4. 8.0		4. 0.0
4	8		6.13.4	8.12.0		7. 0.0
5			7. 0.0	7.13.4		10.0.0
6	14	0. 2.6	3. 3.4	3. 6.0	3.13.4	4. 6.8
7		0. 2.2	2.18.0	3.10.0	3.10.0	4. 0.0
8	14	0. 1.2	2. 8.0	3. 0.0	3. 0.0	3. 3.4
9			2.10.0	3.13.4	3. 6.8	3.16.8
1680			3. 0.0	4. 0.0	3. 0.0	3.16.8
1	11	0. 5.0	4.13.4	5. 0.0	3.13.4	3.16.8
2		0. 4.2	4. 3.4	5.16.0	4. 0.0	6.13.4
3			3. 3.4	3.16.4		3.16.8
4			4. 0.0	4. 6.8		4. 0.0
5			3. 0.0	3.13.4		3.16.8
6			3. 0.0	3.13.4		5. 0.0
7			3. 0.0	3.14.0		4. 0.0
8			4. 0.0	4.10.0		4. 0.0
9			4.13.4	5. 6.8		4.13.4
1690			6. 0.0	6. 4.0	6. 0.0	6.13.4
1			3. 3.4	3.16.0	4. 0.0	4. 3.4
2			3. 0.0	4. 0.0	4. 0.0	4. 0.0
3			3. 3.4	4.10.0	4. 0.0	4. 3.4
4			3.10.0	4.16.0	4. 6.8	4. 3.4
5			6.10.0	7. 0.0	6. 0.0	6.13.4
6			7. 0.0	9. 0.0	8. 0.0	8.13.4
7			5. 3.4	6. 6.0	7. 0.0	7. 6.8
8			7.13.4	10.10.0	10. 0.0	9. 6.8
9			7.13.4	9.10.0	8. 0.0	9.13.4
1700			4.13.4	6. 0.0	6.10.0	7.10.0
1			3.10.0	4. 6.8	5. 0.0	4. 6.8
2			4.10.0	4.13.4	4. 6.8	4.10.0
3			4. 6.8	5. 0.0	4. 0.0	4.10.0
4			3.10.0	5. 0.0	4.13.4	4.10.0
5			3. 3.4	4.10.0	4. 3.4	4. 6.8
6			2. 6.8	2.16.0	4. 0.0	3. 6.8
7			2. 6.8	4. 0.0	4. 6.8	3. 3.4

	<i>Edinburgh wheat bread</i>	<i>Stirling oats</i>	<i>Fife oats</i>	<i>Haddington oats</i>	<i>Aberdeen oats</i>	<i>Fife bere</i>
1708			4.16.8	5. 8.0	5. 6.8	5. 3.4
9			5.10.0	7. 6.8	5. 6.8	
1710				6. 0.0	5. 6.8	6.10.0
11			4. 0.0	5. 0.0	4. 6.8	4.13.4
12			3.10.0	4.13.4	3.13.4	4. 0.0
13			3.10.0	5. 0.0	5. 0.0	4.13.4
14			4.16.8	5. 6.0	5. 0.0	6.13.4
15			4. 5.0	5. 6.8	4.13.4	4. 3.4
16			3.10.0	4.13.8	4. 6.8	4. 3.4
17			3.16.8	5. 6.8	5. 0.0	4. 0.0
18			4.10.0	5. 2.0	4.13.4	4.13.4
19			4.16.8	6. 2.0	5. 0.0	5. 0.0
1720			4. 0.0	5.10.0	4. 0.0	4.13.4
1			4. 3.4	4.18.0	4. 6.8	4.10.0
2			5.10.0	5.13.0	5. 6.8	5.13.4
3			5.16.8	6. 5.0	6. 0.0	7. 6.8
4			4. 0.0	5. 0.2	4. 3.4	4.10.0
5			4. 0.0	5.16.0	4. 0.0	4.16.8
6			4.10.0	5. 8.0	4. 6.8	4.13.4
7			4.13.4	5.13.4	4.13.4	5. 6.8
8			5. 6.8	7. 4.0	5.13.4	6. 6.8
9			5. 0.0	6.10.0	5. 0.0	5. 0.0
1730			4.10.0	4.16.0	4. 6.8	3.16.8
1			4.10.0	4.13.8	5. 0.0	3. 3.4
2			4. 0.0	4. 3.8	4.13.4	3.15.0
3			4. 0.0	5. 2.0	4.13.4	4. 3.4
4			4. 3.4	5. 0.0	5. 0.0	4. 6.8
5			4.13.4	6. 0.0	5. 3.4	4. 6.8
6			5. 0.0	5.16.0	5. 0.0	5.10.0
7			4. 8.0	5. 0.0	4.13.4	5. 6.8
8			3. 6.8	4. 0.0	4. 0.0	4. 6.8
9			4.13.4	5.18.0	5. 6.8	5.12.0
1740			7.13.4	9. 0.0	7. 0.0	8.10.0
1				6. 0.0	6. 0.0	
2			4. 0.0	4.12.0	5. 0.0	5. 0.0
3			3.12.0	4. 0.0	3.12.0	4. 3.4
4			4.12.0	6. 8.0	6.13.4	4.12.0
5			5.10.0	6.16.0	6. 0.0	5. 5.0
6			5. 3.4	5. 6.8	5. 6.8	5.10.0
7			4.12.0	4.16.0	4.13.4	4.10.0
8			4.13.4	5. 6.0	5. 0.0	5. 0.0
9			4.12.0	5.10.0	4.10.0	4.10.0
1750			4.18.0	5.10.0	5. 0.0	4.16.8

Technological Improvement and Social Change in South Cardiganshire

By J. GERAINT JENKINS

THE vast technological revolution in agriculture so often ascribed to late eighteenth- and nineteenth-century Britain only reached south Cardiganshire within the last sixty years. The area is by tradition a stock-rearing area and, until the beginning of the present century, the farmers of the area never demanded the vast quantity of new tillage and barn machinery that the inventive ability of agricultural engineers had devised for easing the farmer's labour. Within the last sixty years, however, the isolation has been broken down and the vast improvement in agricultural technique, in tools, and in implements has completely changed the pattern of life in the region. The application of new scientific methods of farming and the development of rural amenities since 1945, in particular, have had a far greater impact on Welsh society than all the developments of the previous thousand years.

The agrarian history of south Cardiganshire may be said to fall into three distinct periods:

1. Until the end of the nineteenth century we have a period of medieval simplicity. A large proportion of the farmers were tenants of an anglicized aristocracy, and their farming depended entirely on a wide range of simple hand tools, a large labour force, and the co-operative effort of relatives and neighbours during the busy periods of the farming year. Until the end of the nineteenth century, the neighbourhood group was all important, and few members of the local community found it necessary to go outside their locality for the means of life.

2. From approximately 1900 to 1939 we have a period which may be described as the period of slow innovation. It saw the break-up of the large estates and the emergence of a class of owner-occupiers. It saw, too, the introduction of new horse-drawn implements—mowing machines, hay tedders, binders, and manure spreaders—many of them co-operatively owned by a number of neighbouring farmers. Nevertheless, the new implements did not supplant the old hand tools and techniques, for throughout the period the old still persisted alongside the new. The scythe for example, still continued to be used alongside the binder; the pitchfork still persisted alongside the mechanical hay loader; and corn had still to be stacked into land mows in the manner of the previous thousand years. Although the farm

labour force dwindled considerably within this period, the co-operative effort of relatives and neighbours was still required at the busiest periods of the farming year.

Within this period, too, the inhabitants of west Wales realized to the full that there was a world outside their own immediate locality, where they could sell the products of their farms, and where their sons and daughters could be educated to prepare them for a livelihood outside agriculture. Indeed, within this period a new outlook on life became apparent: agricultural work was regarded as a last resort when searching for work for young people. It was considered unnecessary to educate a child if his destiny was to be the land, and the ambition of most Cardiganshire farmers was to educate their children so as to ensure a future for them in prestige-bringing, non-manual, professional work in the towns and cities of Britain. The effect of this outlook on rural society in the inter-war period was in itself a near-tragedy, for it robbed the countryside of those people who could have become its leaders.

3. The period from 1939 to the present day may be described as a period of revolution. Old techniques, old tools, and old implements, even those regarded as the last word in modernity in 1939, have been thrown away at a great rate to be replaced constantly by more modern equipment. With modern machinery the farmers are able to complete their work with a very small labour force, and the social life associated with co-operation between neighbours at busy times of the year has disappeared. Interdependence has given place to the independence of each farm, and today the agricultural contractor with his vast range of up-to-the-minute equipment is perhaps the most important member of the rural community.

The drift of young people from the countryside to the towns has also continued at an ever-increasing rate and more and more Welsh-speaking families in the region have ceased to have any connection with the land, in many cases after generations of farming. The empty farms have almost invariably been sold to English people who are unable to participate in the traditional social life of this Welsh-speaking region. Within the last few years the movement from England into west Wales has been so great that the region is becoming more and more anglicized.

Today the west Wales farmer is a commercial entrepreneur, highly capitalized with stock and machinery, and often dependent on credit facilities. It is probably true to say that many farmers occupying small and medium-sized holdings (and 92 per cent of the farms of south Cardiganshire are below a hundred acres in size) are dependent for their net income on government subsidies. The introduction of modern amenities has, in effect,

created a new social environment, far removed from the subsistence farming of little more than half a century ago.

It is worth while to look in somewhat greater detail at these three periods in the agrarian history of west Wales.

PERIOD I

Up to the end of the nineteenth century, farming in south Cardiganshire was essentially mixed in nature and all the commodities required by the community were produced within the region. Each individual realized his ambitions within his own immediate locality, rarely finding it necessary to go outside that locality for the means of life. All the food required by the community could be produced locally; as well as all the products of the farm, the furniture of the home, clothing, footwear, dairy and kitchen utensils; indeed, everything considered essential to life could be produced in one or other of the local craft workshops. Every rural locality in south Cardiganshire, as elsewhere, had its community of craftsmen—smallholders who were very often paid in kind rather than in cash by local farmers. The woollen factory, for example, was allowed to keep a proportion of the fleeces that a farmer brought in for weaving into cloth or blankets for his family's use, while a blacksmith was given a small rick of corn (*llafur golym*) for the countless minor tasks, such as retining harrows and sharpening mattocks, that he undertook throughout the year. In other cases, the farmer was expected to plough the craftsman-smallholder's fields, to cart his crops, to provide corn for his poultry, in return for the craftsman's services throughout the year. In those days, therefore, the rural neighbourhood, 'characterized by an intimacy of association within a territorial space', was an economic as well as a social entity.

Nevertheless, the central theme of neighbourhood feeling, around which all other relationships revolved, was mutual assistance in farm work. On the one hand, there was co-operation and even co-ownership of implements between farmer and farmer. Each farm saw itself as the focus of a small group of perhaps seven or eight other farms with which it had frequent dealings. On the other hand, there was co-operation between farmers and a large number of non-farming cottagers and smallholders, many of whom possessed less than five acres of land.

In an era when the tools and implements of agriculture were few and simple and farming was a manual art rather than a series of mechanical processes, no farm could exist as an independent and separate unit. For example, few farms of less than eighty acres in size, and that meant a total of 80 per cent in south Cardiganshire, kept a bull. But as the income of all medium-

sized farms depended very largely on the sale of store cattle and butter, the bull was an essential farm animal. The breeds of cattle that were most popular in the late nineteenth century were the Castlemartin Blacks and Welsh Blacks and these always calved in the spring months, thus ensuring a high milk yield in the summer. Since only one farm in four possessed a bull, it meant that 80 per cent of the farms were dependent on the other 20 per cent for this essential service. The traffic of cows from one farm to the other was constant throughout the summer months, for without this co-operation between the large farm and its smaller neighbours the economic basis of Cardiganshire farming would break down. No cash payment of any kind was made for the bull's services, but the debt was paid by providing a day's labour in the hay harvest or at some other busy occasion in the farming year. In the same way, only one farm in eight kept a boar, but since bacon pigs were as important as store cattle in the economy of the region, boars too were a necessity. For the smooth running of a pastoral economy, therefore, co-operation between farmers was essential.

In an area of dispersed family farms, where the labour force on each holding was of necessity small, co-operation was practised at all times. Labour was frequently exchanged, draught animals and implements were constantly borrowed, while on certain occasions such as sheep-shearing and potato-picking the labour force on many farms attained vast proportions. The co-operative nature of Welsh agriculture was, perhaps, most clearly seen in the hayfields, for not only did neighbouring farmers help one another in harvesting this vital crop, but their wives and serving maids, together with cottagers and their families, were expected to help. For example, on a farm of seventy acres in the parish of Penbryn in mid-June 1896, 10 of the 72 adults at work in a hayfield on a particular day were neighbouring farmers, 23 were farm labourers in their employ, 12 were serving maids, also in their employ, 18 were cottagers, and 9 were the wives and daughters of cottagers. In addition to this outdoor labour staff, one should add the farmer's wife and the wives of neighbouring farmers for they were concerned with the preparation of food in the house, since only maidservants and the wives of cottagers were expected to rake the hay in the fields.

While the farmers were not paid in any way, except by exchange of labour, cottagers were always paid in kind: they were given a pat of butter (called debt butter), a bottle of milk, a little cheese, a sack of swedes, or a sack of corn for their poultry. On the other hand, a day's labour in the hayfield might pay for carting a load of coal from the local seaport village or providing a cartful of manure for the garden. As far as co-operation between farmers was concerned, a dozen or more holdings within a neighbourhood had, since

time immemorial, formed themselves into a workable unit to deal with the hay crop. Farmers together with the one or two male servants in their employ would assist one another with the mowing—a task which until the first decade of the twentieth century was always undertaken with scythes. To carry the hay, each farm within the group was expected to supply a horse and *gambo* (a long wheeled cart that made an appearance only at harvest time), together with labour in both the fields and the rickyard. It is clear, therefore, that since the hay harvest in late nineteenth-century Cardiganshire was not mechanized in any way, a large labour force was essential, but no single family farm within the region could supply that labour on its own. Owing to the moist climate too, it was essential that the hay be harvested very quickly, and again to do this a larger labour force was required.

While the hay harvest was very largely a communal affair and neighbouring farmers were expected to help one another, the corn harvest was a matter for each individual farmer. There was little co-operation between farms in a neighbourhood group on this occasion. Although the economy of west Wales is by tradition a pastoral one, surprisingly large acreages were devoted to arable crops. In the parish of Penbryn in 1890, for example, 2,500 acres out of a total of just over 8,000 were under the plough. No cereal crops were grown for sale. Wheat was used in the home, oats for feeding horses, and barley, the most important crop of all, for feeding pigs and cattle. The equipment for dealing with these crops was simple in the extreme. Corn was sown broadcast from a basket lip or linen sheet; it was weeded with a forked stick and weeding hook; and it was harvested with a scythe and cradle. In wet years, and they were frequent on the western seaboard, when rain and wind had flattened the corn crop, and in dry years like that of 1894, when the corn stalks were particularly short, the scythe and cradle could not be used and the whole crop had to be harvested with the sickle. In those unfortunate years, harvesting was an extremely slow and difficult process, but even in normal years it would take an experienced scyther at least a full day to cut an acre of corn and at least another half day to bind it into sheaves. It was customary to bind wheat immediately after cutting, a task that was always done by women, but in the case of barley and oats the crop had to remain on the ground for at least nine days before binding. The sheaves were then stooked and, after a number of days had elapsed, the stooks were collected together and built into land mows of either seventy-two or ninety-six sheaves. Finally the corn was carried to the rickyard in *gambos* and built up in rectangular or round stacks which were then thatched. Harvesting, even on a small farm, was a lengthy process for under normal circumstances it would take one man working alone at least five days to cut, bind, and carry

an acre of corn, without counting the period that the corn had to remain loose on the ground, in stooks, and in land mows.

A farm of a hundred and forty-five acres in the parish of Llangrannog in 1897, for example, grew thirty-five acres of corn—fifteen of barley, twelve of oats, five of wheat, and three of rye. If the farmer were to depend on his own labour resources, consisting of himself, his wife, two male and one maid servants, harvesting would take at least thirty-five working days. Meanwhile the day-to-day work of the farm had to continue; the ten dairy cattle had to be milked and fed, the thirty-five calves, fifteen pigs, five horses, and poultry had to be cared for and food for the family had to be prepared. No family farm of this size could possibly cope independently with all the work that was involved at this busy period in the farming year. The Cardiganshire farmer was therefore forced by circumstances to look elsewhere for extra labour in the harvest fields. He looked not towards his farming neighbours, who were themselves fully occupied, but towards the non-farming cottagers who lived in the neighbourhood and were largely dependent on the farmer for the means of life. In order to feed themselves and their families and to provide food for the pig and hens that the cottager always kept at the bottom of his garden, he was allowed to plant potatoes in a neighbouring farmer's fields. While the cottager supplied the seed potatoes, the farmer undertook the preparation of the ground, weeding and hoeing the growing crop, and supplying the manure. In payment for this the cottager was expected to work in the harvest field. For each row of carefully measured potato rows, each eighty yards long, the cottager worked for a day cutting the corn, or, alternatively, he spent a day and a half binding corn as payment for each row. As each family required between two and five rows of potatoes, this custom of work-debt solved the problem of scarcity of labour during the corn harvest. In the autumn, cottagers were expected to assist with picking the farmer's potato crop before they tackled their own, but the farmer undertook the delivery of potatoes to the cottager's home. This custom of the work-debt remained in vogue in south Cardiganshire for as long as simple equipment was used; indeed, it is only within the last fifteen years, with the advent of modern machinery, that the last vestiges of it have disappeared. In the late nineteenth century, there were at least two legal cases where cottagers had obtained the right of planting potatoes in a farmer's field, but had failed to fulfil their side of the contract by working at the corn harvest. In both cases judgment was given in favour of the farmer, mainly on the grounds that he had supplied manure for the cottager's potato crop.¹

¹ I am grateful to Mr David Jenkins of the University College of Wales for this information and for many details of harvesting customs in west Wales.

To sum up, therefore. Until the end of the nineteenth century the number employed on each farm was small, the tools and implements of agriculture were few and simple, and for these reasons no farm could exist as a single economic unit. To overcome the problem of scarcity of labour, particularly at busy periods in the farming year, a complex social organization was evolved, and in this organization all local dwellers, farmers and non-farmers, had their parts to play. Cottagers were indeed a part-time labour force and the rules relating to their rights and duties in a rural neighbourhood were very rigid indeed.

PERIOD II

The period 1900 to 1930 saw a widening of the horizons of the Welsh farmer and a new emphasis on production for the market. The acreage under arable crops declined very greatly, while first stock-rearing and then dairying became all important. The most significant single event of the period was the establishment of the Milk Marketing Board in 1933. Almost immediately the production of butter and store cattle declined, sheep and pigs disappeared, and the production of liquid milk became the basis of the economy. The milk-collecting lorry became a vital element in rural communication, for not only did it collect the churns of milk from farms daily, its driver was also expected to bring daily papers and goods from the nearest market town, while the vehicle was often used as a means of conveying people from one place to another. Throughout the period, therefore, a gradual change in the economy took place, the mixed, largely self-sufficient economy of the nineteenth century giving place to a specialized dairying economy by 1935. In 1900 the hardy native black cattle were all important, but by 1924 they had been replaced by the all-purpose shorthorn, and by 1939 Channel Island and Friesian breeds were gaining ground at a considerable rate.

This change of emphasis completely changed the pattern of work on Welsh farms. Whereas in the first decade of the century, most medium-sized, mixed farms kept two or three male labourers, who spent a great deal of time cultivating and harvesting the arable crops, by 1933 the farm servant was a rarity except on the largest farms. By that time arable crops had become relatively unimportant, so that the traditional work of the male labourer had dwindled. But as dairying grew in importance, so too did the work of women on the farms. Despite a huge increase in the size of the dairy herds, women were still expected to undertake all the milking, the cattle-feeding, the clearing-out of their sheds, together with poultry-feeding and preparing food for the family. The farmer, now in many cases without assistance from paid

labourers, was fully engaged in the fields—ploughing, cultivating, ditching, and hedging—and spent far less time in the farmyard.

Owing to this change of emphasis and the introduction of new cultivating and harvesting machinery, the paid labour force on Cardiganshire farms declined rapidly and a large number of labourers made their way to the industrial regions of south Wales, the Midlands, and London. In addition the break-up of the large estates and the fragmentation of holdings contributed further to this decline. Whereas in 1890 the average size of holding in five parishes in south Cardiganshire was 55.2 acres, by 1910 the average had dropped to 42.8. A great increase in the number of farms below twenty acres meant that holdings in south Cardiganshire became family farms in the true sense, requiring no more than the labour of a farmer and his wife to undertake all the work.

Nevertheless, the feature that characterized the period above all else was mechanization which not only contributed to depopulation but also affected rural social life in all its aspects. In the early years of the century the horse-drawn mowing-machine made its appearance and it quickly replaced the scythe on the larger farms for harvesting hay and corn. No longer were the vast gangs of farmers and cottagers required to harvest fields of corn, for all this work could be completed very quickly by the farmer himself without any assistance. Nevertheless, the purchase of mowing machines meant an appreciable capital outlay, which few farmers could afford. This problem was overcome by a co-operative effort whereby groups of half a dozen farmers pooled their resources to buy the new machines. Each farm within the group was allowed to use it in turn and in a specific order, each one providing extra labour at harvest time for the other farms within the group. By 1910 the binder had replaced the mowing machine on many farms, and its appearance dispensed with the need for extra labour to bind corn in sheaves. Since the cost of the binder was considerably higher than that of a mowing-machine, the co-ownership of those implements was often shared by a dozen or more farms. Once again labour was exchanged for building land mows and carrying the crops. As far as corn harvesting was concerned, there were few technological changes between 1914 and 1950 and throughout the period co-operation between farms continued. As far as the hay harvest was concerned, however, a large number of new implements became popular in the inter-war period, ranging from tedding machines (known as kickers) to mechanical hay loaders.

It is clear, nevertheless, that early mechanization during the first twenty-five years of the twentieth century led to interdependence between farmers, particularly through the co-ownership of implements and the exchange of

labour at busy periods such as threshing time. By 1904 an agricultural contractor with steam and threshing tackle was making regular journeys from farm to farm in the autumn and again in January, spending little more than one day at each farm in turn. Whereas in the nineteenth century threshing was done with flails, the process continuing on odd days throughout the winter months, farms required extra labour after the advent of steam-threshing tackle—some to feed the machine, others to carry the grain to the barn; some to remove the chaff from the machine, others to build straw ricks, while hordes of small boys fed the engine with coal and water. It became customary therefore for farmers to help one another in threshing and for cottagers to pay for the right of planting potatoes in the farmer's field by giving a day's work at the threshing. But for cottagers, mechanization generally meant that they were less essential to the smooth running of the economy than in the past, for the traditional work that they performed—cutting and binding corn—was now undertaken by machines, except on the smaller farms. But the cottagers' custom of planting potatoes in the field continued until 1939 and even later in some localities, although the rigid rules of the work-debt were not as strictly adhered to. A cottager was still expected to plant and pick a farm's potatoes, and to work at the hay harvest for, although field machinery had been introduced to deal with the hay, manual labour was still required in the rickyard.

In most aspects of farm work, therefore, the advent of machinery meant the end of the rigid social organization that co-operation between farmer and cottager brought into being. Nevertheless, until 1939 smallholdings still depended very largely on hand tools, although many could borrow the machines of neighbouring large farms for some of their tasks, the debt being paid by providing a day's work at the hay or potato harvests or on threshing day.

PERIOD III

Since 1939 the agricultural economy of south Cardiganshire has been completely transformed, and the technological, economic, and social changes brought into being since 1945 in particular have completely altered the outlook of the Welsh farmer. One of the most significant social changes which came as a result of technological improvements was a weakening of the neighbourhood group with its intimacy of association and co-operative organization. Today each farm in the region is an economic unit, almost completely independent of its neighbours. Although few farms employ paid labour on a full-time basis, a wide range of modern equipment makes it possible for the farmer to complete his work with little outside help. It has been said that in areas where farmers regard the neighbourhood as the main

social organization of their lives, clear signs of technological and economic backwardness are displayed in those districts. In the hills of mid-Cardiganshire, for example, where neighbourhood feeling reigns supreme, there is among the farming population an unwillingness to change attitudes, values, and institutions, which are out-dated in terms of modern economic and social conditions. But in the south of the county technological progress has led to a weakening of neighbourhood feeling and economic and social conditions have changed spectacularly.

As has been said, the introduction of new implements in the inter-war period failed to disrupt the established order; indeed early mechanization led to greater co-operation between neighbouring farmers. Before 1939, machinery was introduced in an attempt to cut down labour costs, for there was a great decrease in the number of employees on Welsh farms. Since 1945, however, south Cardiganshire farmers have experienced great difficulty in obtaining labour. Very few young people are prepared to work on the land after leaving school, whereas in pre-war days a proportion of school leavers did become farm labourers. Between 1935 and 1938 52 per cent of youths leaving school in the Penmorfa district took up agricultural work, but in the years 1955-8 less than 5 per cent of school leavers became farm workers. The setting-up of a research establishment at Aberporth has not only provided work for those who in earlier years could have become farm workers, but it has also robbed the farmers of the services of cottagers, who were in effect a part-time labour force. Cottagers have ceased to provide voluntary labour in threshing and in the potato and hay fields. Before 1950, for example, the potato crop on every farm was planted and harvested by hand, but since that date farmers have experienced increasing difficulty in obtaining extra labour. Cottagers have ceased to plant potatoes in a neighbour's field and the total acreage devoted to the crop has decreased considerably. A number of the larger farms in the region have purchased mechanical planters which are hired out to neighbouring farmers for a specific fee rather than by exchange of labour. In all aspects of farm work voluntary co-operation has ceased and the co-ownership of implements is no longer practised.

South Cardiganshire is a region of small-sized dairy farms and the average income of the individual farmer is little more than £700 per annum. To overcome the shortage of labour, it would be impossible for him to purchase all the equipment required for modern farming; indeed, it would be quite uneconomic for the Welsh farmer to purchase the highly specialized, expensive cultivating and harvesting machinery which may be required for only a few days in every year. The majority of Cardiganshire farmers view hire-purchase facilities with considerable suspicion, so that one of the most signi-

ficant developments of the post-war period has been the emergence of the specialized agricultural contractor, who, with his ever-widening range of modern equipment, has become one of the most important members of the rural community. Before 1939 the only farm task that the contractor undertook, and he was usually a farmer himself, was the threshing. Today the advent of the combine harvester has dispensed with the threshing machine although most farmers keep a small proportion of corn for spring sowing which has to be threshed in January. Nevertheless, threshing day is not the co-operative affair that it was a few years ago and the contractor, with his staff, is able to complete the work very quickly. In all aspects of farm work, from ditching to harvesting and from ploughing to baling hay, the agricultural contractor is a key figure, and not only has his emergence meant a great decrease in the labour force, it has also meant that the farmer is spending less and less time in the fields. Within recent years farmers have taken over such tasks as milking and caring for the dairy herd, tasks which in the past were always performed by women. Today women spend little time outside the dwelling, but since south Cardiganshire has become an important holiday centre, catering for tourists has become an industry of great importance. Almost every farm has taken advantage of this post-war boom and signboards advertising *Bed and Breakfast* and caravan sites have mushroomed throughout the area. Tourism provides the farmer's wife with an income that is far more assured than that derived from selling butter and eggs, particularly in an area where the economy of the small farm is delicately poised. Nevertheless, the Welsh farmer's dependence on the tourist trade has had adverse effects on the traditional social and religious life of the region. Alien influences have led to a weakening of neighbourhood feeling and to the disappearance of the communal nature of the social life associated with the Welsh rural scene.

The period since the end of the war has also witnessed the extension of government grants and subsidies to cover practically all farm operations. In addition to subsidies and grants for production, there are improvement schemes designed to improve dwellings and land and to bring modern amenities to the small farmer. In the broader field, the government has been improving rural schools, encouraging the development of the electricity grid, grant-aiding large public water supply schemes, and improving roads. The introduction of modern amenities and the growing use of motor cars has in effect created a new competitive social environment. The Milk Marketing Board is faced with ever-growing quantities of milk, surplus to the requirements of the market. The average price of milk has decreased to such an extent that some farmers have reverted to the age-old tasks of rearing beef

cattle. The economy of the small and medium-sized farms is in the balance. On the one hand the farmer is faced with increasing rents and higher costs of machinery, labour, feeding stuffs, and veterinary services. On the other hand he finds that his returns are diminishing, particularly from the sale of liquid milk which is the keystone of the economy. An alarmingly large proportion of the moderate 'prosperity' of the small Welsh farm is due to government subsidies, for even the most favoured dairy farms derive up to 30 per cent of their net incomes from grants and subsidies, while on small stock-rearing farms subsidies exceed net income by a considerable amount. The government has decided to assist some small farms under the "Small Farmer Scheme", but in view of the evidence, many have expressed the opinion that small units are undesirable and economically wasteful, and that nothing should delay the process of amalgamation into larger units.

Notes and Comments

THE ANNUAL CONFERENCE

The annual conference of the British Agricultural History Society was held at Keele Hall, the University of Keele, from 7 to 9 April. After the opening reception and dinner, at which the Society's guests were the Earl of Harrowby, Professor W. M. Simon, and Mr F. B. Stitt, Professor W. M. Williams spoke on the theme 'A Sociologist's Use of Historical Evidence'. The following morning Mr R. W. Sturgess read a paper on 'The Agricultural Revolution on the heavy lands of the Midlands'. In the afternoon members visited Sandon Hall, where the Earl of Harrowby acted as guide, and in the evening Dr T. C. Smout explored the problems of 'Scottish Farming before the Improvers'. The final paper of the conference was given by Dr Rosamund Faith on 'Peasant Families and Inheritance Customs'.

At the annual general meeting held on Thursday, 8 April, Professor H. P. R. Finberg was elected President of the Society. Mr C. A. Jewell and Mr T. W. Fletcher were re-elected Treasurer and Secretary respectively. Three members of the executive committee, Professor H. P. R. Finberg, Mr G. Ordish, and Miss L. Pearson retired, and Mr

G. Houston, Mr W. Harwood Long, and Dr W. J. Rowe were elected to the vacancies.

Dr W. H. Chaloner presented the report of the executive committee and thanked Mr R. V. Lennard for his active service in the office of President during the past three years. The Treasurer reported that the membership list had been scrutinized for delinquent subscribers and revised. The financial position of the Society was satisfactory.

THE CONSTITUTION

The executive committee, as authorized by the annual general meeting, has studied the constitution of the Society with a view to reform. Three proposals for the amendment of the constitution have been received relating to clauses 4, 8, and 10, and written notice of these amendments will be circulated to members with the notice of the next annual general meeting that is to be held in Spring 1966.

FUTURE CONFERENCES

The December conference of the Society will be held jointly with the Association of Agriculture at the London School of Economics on Saturday, 4 December. The 1966 Spring conference and annual general meeting will be held in Dublin beginning either on Mon-

(continued on p. 115)

An Account of a Yorkshire Enclosure

Staxton 1803

By BRIAN LOUGHBROUGH

THE belt of country that extends from Dorset through the English scarp-lands to North Yorkshire contains some of the most interesting examples of early land-use planning. In the eighteenth and nineteenth centuries the open fields and commons of over two thousand parishes were enclosed by Act of Parliament. In addition to the details given in these Acts and the subsequent Awards, further evidence of the way in which individual enclosures took place can be obtained from various other papers. Among these, minute books of the enclosure are perhaps the most valuable, for they help to fill in details of the events that took place between the framing of the Bill and the registration of the final Award.¹

The notebook which was kept by the solicitor to the enclosure of the East Yorkshire village of Staxton has survived and has made possible a study of the process in this particular case.² This brief paper is intended to show how the problem was tackled in this instance, using both the notebook and the award itself. Full as the information is, there are many tantalizing gaps, and one often finds oneself wishing to see the claim papers of the respective occupiers. Nevertheless, it has been possible to build up a picture of the changes that took place in the township and to throw light on events in neighbouring townships.

THE SETTING

Staxton is one of a line of townships whose

settlement nuclei are situated in the Vale of Pickering at the foot of the chalk scarp of the Yorkshire Wolds. It shares in the successive types of soil that are contained within the elongated boundaries of each township. The chalkland, which rises to about 550 feet above sea level on Staxton Wold, once presented a much more open appearance than it does today. The steep dry valleys, separated by smoothly curving wolds, were covered with a close sward derived from continuous sheep grazing. Few fences or trees and no settlements obstructed the views across the higher northern part of the Yorkshire Wolds. There was a certain amount of cultivation on the wold because of the lack of available field land in the vale itself, so that the wold formed a type of 'outfield', which was cultivated not more often than once in six years. After harvest the sward was allowed to regenerate naturally.

On the lower scarp slopes and on the post-glacial sands and gravels at their foot lay the open field. The writer has found no evidence to show whether it was divided into two, three, or more 'fields'. It is possible that there was no formal division, the whole forming a complementary 'infield' to the extensive area on the wold.

To the north of the village lay the ings on a subsoil of post-glacial sands and gravels and lacustrine deposits of the glacial and post-glacial Lake Pickering. Although the ings were elevated but a few feet above the floor

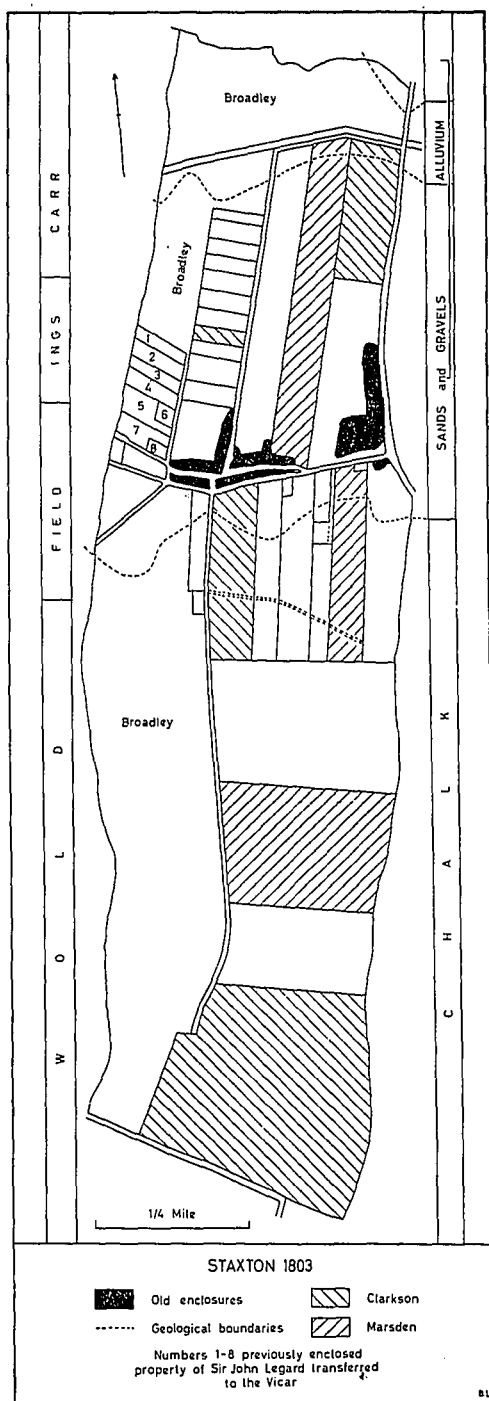
¹ For general references on parliamentary enclosure see W. H. Chaloner, 'Bibliography of recent work on enclosure, the open fields, and related topics', *Agric. Hist. Rev.*, II, pp. 48-52; H. G. Hunt, 'The parliamentary enclosure movement in Leicestershire, 1730-1842', Leicester University Ph.D. thesis, especially Chapters 2 and 3; A. Harris, *The Rural Landscape of the East Riding of Yorkshire*, 1961, Chapter III; B. Loughbrough, 'Some geographical aspects of the enclosure of the Vale of Pickering in the eighteenth and nineteenth centuries', Hull University M.A. thesis.

² Enclosure Award enrolled in the Registry of Deeds, Beverley, CA, 235, 32.

of the vale, they were able to escape the worst consequences of flooding whilst deriving benefit from the occasional waters that stood upon them in winter. This land provided the chief source of hay and 'afterfeed'. Beyond the ings to the north lay the carrs comprising an ill-drained peaty area at an almost uniform height of about 80 feet above sea level. Until the beginning of the nineteenth century every winter had seen them waterlogged so that their chief value lay not in grazing but in fisheries and reed beds. When the waters receded it is recorded that the carrs provided a "kind of ordinary pasturage for young beasts."¹

Such then were the physical and agricultural divisions that were to become the sites of the changes during the years 1800 to 1803. After 1800, the year of the Muston and Yeddingham Drainage Act whereby powers were given for the draining of some 10,000 acres in the east of the vale, nine contiguous townships were enclosed. Staxton lies approximately in the middle of this group and many of the problems encountered there can be paralleled by examples from neighbouring townships.

The prime movers in the schemes for drainage and improvement were the landowners, many of whom were locally resident. The enclosure may be seen as the logical consequence of the improvement in drainage, for the newly enclosed grounds when drained were turned to arable land and so provided cash crops which helped to pay for the large initial expense of enclosure. The desire for enclosure was prompted by one other factor. Arthur Young in his *Northern Tour* of 1770 noted a letter from Sir Digby Legard of Ganton in the next parish to Staxton.² The letter contains an account of the experiments carried out by Sir Digby on the wold section of his estate that had hitherto been considered infertile and incapable of improvement. From the figures that his researches gave, he concluded that by enclosure and the use of suitable crop rotations it was possible to ob-



¹ Sheffield Public Library, Wentworth Woodhouse Muniments, F.11.

² A. Young, *A Six Months Tour through the North of England*, II, 1170, pp. 10-36.

tain good yields of corn and turnips. Densities of stock could then be raised, and fencing and the planting of shelter belts would help to protect both crops and stock on the upland as well as provide much needed timber.

There was, therefore, the added attraction of an improvement in the wold land as well as the possibility of cultivating the carrs and ending the system of open-field husbandry which would have cramped these efforts. In seeing the possibilities described above the owners at Staxton were but a few among the many who sought the general improvement of the vale at this time.

THE ENCLOSURE

At a meeting held on October 29th 1800, the parties to the intended enclosure met to discuss the matter. They were Rev. Wm Legard for Sir John Legard, R. C. Broadley, Rev. A. Jacques as vicar and also for himself and for D. Brown and Francis Cockerill. These agreed unanimously that there should be an enclosure and they then adjourned their meeting until December 5th. On that date the parties agreed to the setting up of the Bill and the appointment of commissioners, subject to the approval of the cottagers and of Broadley who was absent from the second meeting. There is no record of the cottagers' reaction to the meetings, but from the claims which they subsequently submitted to the commissioners it may be inferred that there was some dissension.

On the 6th of February 1801, a meeting was held to discuss and frame the Bill and the following terms were agreed:

1. that Denison¹ should make a fixed money payment to Jacques as vicar for tithe on his land;
2. that compensation should be made to the vicar for the tithe at Binnington, a township to the west which was also being enclosed by means of allotments in Staxton, and that any deficiency should be made up by fixed money payments;

3. that the 'Horse Car' be divided among the cottagers according to their respective estates and interests therein;

4. that the 'Common Car' and wastes be divided thus: two-thirds to the owners of the ancient messuages and cottages which carried right of common—any messuage or site thereof being deemed to have a double portion of interest; and one-third to the owners of open field and enclosed land who were owners of such houses according to the value of the field;

5. that the vicar's allotment be fenced at the expense of the impropiators under the direction of the commissioners;

6. that all other disputes relating to the tithes be left to the commissioners;

7. that the commissioners be John Hall, John Dickinson, and Isaac Leatham, the last named being the author of the *General View of the Agriculture of the East Riding of Yorkshire*, published in 1794;

8. that Thomas Barron of Welton and Ralph Burton of Salton be the surveyors;

9. that John Lockwood of Beverley be the solicitor to the enclosure.

A final memorandum was added that Mr Denison as Lord of the Manor of Seamer claimed one-twentieth part of the common and wastes of Staxton, to which the other claimants objected. Since Denison sold his interest no record of the decision on this claim exists.

The appointments made are interesting because each of the commissioners had been concerned with other awards in the immediate neighbourhood of Staxton. It may be concluded that the method they adopted to deal with the reallocation of the land was part of a long process of trial and error which culminated in later years when allotments were set out in a manner much more convenient for the management of holdings.

The Bill was read for the first time in the House of Commons on Friday, the 8th of May 1801. After the second reading on the

¹ W. J. Denison was Lord of the Manor of Seamer and appears to have owned land in Staxton at the enclosure, but by the time the Award was made his name had vanished and it seems likely that he sold his interest to Broadley before the Award was made.

TABLE I

SCHEDULE OF PRE-ENCLOSURE OWNERSHIP

<i>Name</i>	<i>No. of Messuages</i>	<i>No. of Cottages</i>	<i>No. of Oxgangs</i>	<i>Owner of Tithes of Corn & Hay Wool & Lamb</i>	
Sir John Legard	1	2	6	self	R. C. Broadley
R. C. Broadley	1	4	7	Mrs Young	self
Wm Nesfield (Folkton)	1	1	16	Ed. Dickinson	R. C. Broadley
Mrs C. Young (Scarborough)	1	2	10	self	vicar
H. Marsden (Hovingham)	1	1	9½	self	R. C. Broadley
S. Clarkson (Bridlington)	1	1	9	self	R. C. Broadley
Wm Mosey (Burton Agnes)	—	—	2	self	R. C. Broadley
Rev. A. Jacques, vicar, entitled to certain small tithes and as freeholder has	2	1	—	Sir J. Legard	R. C. Broadley

TABLE II

SCHEDULE OF PRE-ENCLOSURE OWNERSHIP: COTTAGERS' TITHE

<i>Name</i>	<i>No. of Messuages</i>	<i>No. of Cottages</i>	<i>No. of Oxgangs</i>	<i>Owner of Tithes of Corn & Hay Wool & Lamb</i>	
Francis Cockerill (Staxton)	—	1	—	Sir J. Legard	R. C. Broadley
Aaron Frankish (Staxton)	—	1	—	Sir J. Legard	R. C. Broadley
Elizabeth Smith (Staxton)	—	1	—	Sir J. Legard	R. C. Broadley
John . . . (Seamer)	—	1	—	Sir J. Legard	R. C. Broadley
Joseph Bland (Scarborough)	—	1	—	Sir J. Legard	vicar
Rev. A. Jacques, formerly D. Brown (Snainton)	—	1	—	Sir J. Legard	R. C. Broadley
Elizabeth Clarkson (Buckton)	—	1	—	Sir J. Legard	R. C. Broadley
John Patrick (Staxton)	—	1	—	Sir J. Legard	R. C. Broadley

12th the Bill passed into the Committee stage on the 1st of June. It was returned to the House on the 8th and was read a third time on the 15th. On the same day the first reading was given in the Lords and a further reading followed on the 16th. Witnesses were sworn to appear before a House of Lords committee on June 19th and a report of the proceedings was given on the 22nd. The Royal Assent was ultimately given on June 27th, 1801.

Following the passing of the Act a meeting was held at Sledmere on August 3rd when R. C. Broadley and Sir Christopher Sykes were appointed as bankers and with whom £50 was deposited under the terms of the Act. The commissioners ordered that the same course of husbandry should be followed

during the preparation of the Award lest anyone should exploit or neglect any portion of land that might change hands. Neither the cutting of thorns nor the removal of furze was to be permitted without the consent of the commissioners. At the meeting which had been advertised in the *Hull Packet* and the *York Courant* the owners presented their claims (Tables I and II).

Two days later the commissioners moved "to perambulate the boundaries of the said township of Staxton" for the purpose of studying the land and considering the possible improvements in value that were entered in the notebook from an assessment made in 1794, reproduced here as Table III. They then moved to more convenient quarters at

TABLE III

COPY OF ASSESSMENT OF VALUES BEFORE AND AFTER ENCLOSURE c. 1794
ENTERED IN THE NOTEBOOK

Area in Acres	Description	Present value		Improved value	
		per acre s. d.	annual £ s. d.	per acre s. d.	annual £ s. d.
60	"Old enclosure"	15 -	45 - -	15 -	45 - -
130	"Field land below the hill on the south side of the road"	7 6	48 15 -	15 -	97 10 -
25	"Field land between Spital House and the Inn"	5 -	6 5 -	12 -	15 - -
5	"Field land at Staxton Town End"	2 6	1 12 6	7 6	1 17 6
60	"Ings ground exclusive of the Pits"	7 -	21 - -	16 -	48 - -
92	"Horse Car"	2 6	11 10 -	5 -	23 - -
316	"Common Car (but if the water can be got off, then the improved value of both the Horse and Common Cars would be 7/6 an acre)"	2 6	39 10 -	5 -	79 - -
872	"Field land above the hill" [i.e. the wold] "This land would be improved 2/6 an acre by ringfencing only upon this ground, then one shepherd would then be able to take care of all sheep, whereas there are now three shepherds."	1 -	43 12 -	2 6	109 - -
1,460			£216 - -		£428 - -

the inn at Seamer, where on the 21st of September, following further advertisements, the remainder of the claims were submitted. A list was made of the claims of each estate and the parties were required to present any objections by October the 3rd 1801. As might be expected the majority of objections relate to tithe claims and so lengthy were the discussions that subsequent meetings were held at Sledmere on 16th October and for a further four days from the 17th November, when the vicar's own case was heard. Having listened to the evidence the commissioners retired to Beverley to consider the proportional claims shown in Tables I and II and to decide which of the objections could be sustained.

The next record in the notebook is dated January 4th 1802 from the Tiger Inn at Beverley, where the surveyor presented his requirements for road construction and alteration. It is interesting to see that at this time the commissioners considered road provision as the first item in their planning and, having first decided the course of the roads, they turned to claims and objections (See Table I and the Appendix). Setting out the allotments took from the 11th to the 16th January.

On the 22nd of February all the tithe rights were declared to be extinguished and in the following three weeks the holdings were staked out on the ground. The owners whose land lay on the commons and waste were allowed to enter it immediately in order to plough and cultivate. Allotments on the common fields were subject to the removal of the offgoing crops by the previous occupants, but the new owners were at liberty to sow grass to follow corn. All fences and ditches were to be constructed as soon as possible.

On July 20th 1803, the commissioners read and satisfied themselves that the Award was in order and that its provisions had been carried out and on the next day it was read at the 'Buk Inn' at Scarborough and legally executed. The following Sunday saw the

proclamation of the Award in the parish church of Willerby. The final action was the registration of the Award with the Clerk of the Peace in Beverley on the 20th of September 1803, almost three years after the first official meeting to discuss the enclosure.

THE AWARD PLAN

A preliminary reading of the contemporary literature on improvement and enclosure would suggest that many people thought that enclosure would bring unqualified benefits, but William Marshall, who was familiar with the area, noted twelve years earlier that "many men of comfortable fortunes have in this district been beggared and the fortunes of others injured by the inclosing of land which have not yet paid."¹ Leatham too, was not fully convinced of the benefits and in the nearby coastal township of Hunmanby had attempted a scheme which made it possible to grow turnips on the open-fields in a six-course rotation.² It is reasonable to suppose, therefore, that the plan for Staxton was one which was the result of some careful thought on the part of its authors.

An enclosure road was constructed south from the village up the scarp face and, as in the case of many roads climbing to the wolds, it was forced to deviate from the customary straight path by the steepness of the slope. It is possible that the line of an old drift or unmetalled grass track was followed in this case, for the commissioners did not always abandon old routeways. On the wold the road separated two sections of land, the western one being allocated to Broadley whose share was so large that it was practicable to give him a continuous section over the varied types of soil. Each of the other major owners had allotments on the eastern section of the wold, which was divided proportionally by the construction of fences at right angles to the line of the main access road. At this period it was recognized that the capital cost of improving wold land could only be met by the

¹ W. Marshall, *Rural Economy of Yorkshire*, 1788, I, p. 84. See also W. Marshall, *On the Appropriation and Inclosure of Commonable and Intermixt lands*, London, 1801, pp. 11-34.

² East Riding Record Office, Hunmanby by-laws, DDHU.

owners of large areas. The lesser claimants had, therefore, no allocation on this up-land.

Below the scarp crest the grounds were similarly divided and, as on the wold, Broadley was given the western portion, so that his land was contiguous with that on the wold. East of the road the divisions were laid out up and down the slope and were awarded to the other main claimants. The resultant pattern of long narrow fields extending up the scarp face is a common one on the whole of the sixteen mile section that forms the southern rim of the Vale of Pickering.

Small blocks of relatively high value were allotted to the cottagers and minor common-right holders on the ings and the upper or 'Horse Car'. These small blocks have survived to the present time as a distinctive feature of the township. A similar solution was reached at Filey where small holders were given portions of high value near the main settlement. From the beginning it must have been realized that these holdings were not sufficiently large to provide an adequate income for their owners and it was thus desirable that the holdings should be near the village where these men would live, supplementing their income by working on the larger farms or by following their trades.

Eastward of the main carr road the land was staked in north-south sections on the same principle as that adopted on the scarp face, so that each person received a progressively poorer share of the land in the direction of the River Hertford.

It will be seen that the approach of the commissioners was based on the subdivision of each of the pre-enclosure land-use areas, each being treated like a separate compartment. With the exception of the blocks made over to the owners of small shares, they took each pre-existing unit of wold, ings, common field, and carr and gave each claimant a portion of it. They did not make a single compact allocation to each individual based on their assessment of the total improved value for all parts of the township. Whether they distrusted the estimates of the potential im-

provements or whether the individual owners wanted this kind of division is not clear, but it is possible that the owners did not think of the land being worked from any other centre than the village itself. The problem of water supply on the wold must have caused doubts about moving farms there from the village nucleus and elsewhere there were difficulties in finding a dry site.

One can see that from this approach the enclosure in a sense only served to introduce new variations on old problems. J. Clarkson, for example, was given one portion of land on the carr, another on the ings, a third on the former field land below the brow, and a fourth and last portion in the very south of the wold. Other owners were given portions situated in the different parts of the township in the same way as Clarkson. In each case the village remained the focal point from which farming could be carried out just as it had been under the open-field system. In other words, although there had been a proportional redistribution according to the respective claims, it consisted essentially of a series of consolidations within the former land-use areas. The disadvantages of this practice hardly need further emphasis and they must soon have become apparent, for in later awards made in the Vale of Pickering there was less fragmentation of individual lots. Moreover, the later allotments extended across pre-enclosure boundaries, thereby hastening the dispersion of settlement and reducing the delays brought about by complex journeys to and from scattered fields.

The figures in Table III give some impression of the probable increase in value per acre on the different parts of the land. As might be expected, there was no change in the value of the home close, but it is interesting to note that this land which had the highest value before enclosure remained among the highest afterwards. While the value of the field land was doubled, it was the ings that showed the greatest increase, proving not only their potential fertility but also the demand for grass created by the increase in cattle-keeping in the area. It was not, there-

fore, only the demand for new rotations based on the introduction of the turnip that was behind the desire for enclosure.

In terms of the relative increase in value, the 'Horse' and 'Common' carrs showed the most notable gains—it was not long after enclosure that the carrs were put down to arable. By the 1840's the tithe maps for the adjoining parishes show that only the very wettest areas were left uncultivated.

Improvements far beyond the scope of the 'ring fencing only' mentioned in Table III followed the introduction of methods of improvement pioneered in this area by Legard and Leatham. It must not be supposed that all the wold was as good or was improved as rapidly as that of Sir Digby Legard at Ganton noted above, but the policy of occasional catch crops and natural regeneration of the turf was over. There is no need to dwell upon the benefits derived from husbandry in severalty. Those who wanted to improve their stock were able to do so and were at liberty to introduce more varied crop rotations.

From the foregoing account it may be seen that the enclosure by no means solved all the problems which faced the small agricultural community of 125 persons recorded in the Census of 1801. With the new holdings came changes which fall into two categories. First, farmhouses were removed to the new holdings, and second, the large allotments became subdivided into more manageable fields. One notable feature at Staxton is that unlike many of its neighbours no significant dispersion of farmhouses took place to the north of the chalk brow.

Tithe allocations were large and were mostly in lay hands and as such meant an absolute loss of land to all but the tithe owners. However, the fact that the matter had been finally adjusted must have helped to make up for the loss. Certainly the claims against the tithe were pressed strongly. The question of how fair the award was to the

individual owners must remain open. The major landowners and tithe-holders were given large portions, but the basis for the allocations to claimants with smaller areas was narrowed by the refusal to allow their claim to an unlimited right of common. We may presume that under the open-field system they had exercised such rights whether they had had them or not. The award removed this particular element of flexibility by clearly prescribing the rights of each individual. Marshall believed that the small allocations to the lesser claimants were ultimately a wasteful use of the land, yet the pattern of small fields laid out on the former 'Horse Car' has survived to the present time.¹

CONCLUSION

Clearly the most striking change brought about by the enclosure was the division of land that had formerly been held in common and its allocation to the various owners in severalty. It saw the removal of tithe payment as a source of social and economic grievance. The principal land holders were able to work their land in larger and better consolidated units though a considerable measure of inconvenience remained. The apportionment to the lesser claimants did little to improve their situation and it seems very likely that they were the poorer as a result. On the larger holdings a dispersion of farm houses and further field subdivision followed.

When considered in this way the term 'agricultural revolution' is no misnomer, for although new methods came to be known in neighbouring areas, it was not until each township was enclosed that a general application of such methods was made. It has been shown that enclosure was not absolutely necessary to agricultural improvement and that the cottagers probably suffered as a result of it, yet the owners preferred their own judgement to any communal system which they believed could only move at the pace of the slowest farmer.

¹ W. Marshall, *Rural Economy of Yorkshire*, 1788, I, pp. 48-105, especially pp. 56-8.

APPENDIX, PART II: DECISIONS ON CLAIMS

1. "Clarke and Wilmot not allowed claim of two cottages—a half right allowed for each."
2. "Legard claim not allowed—tithes not construed to extend to Thornton's land (except for Haslewood's cottage) or to Broadley's and Reeve's land or to the messuages and cottages."
3. "Claims of Jacques and Catterson to messuage occupied by Thos. Coates that it be exempt from tithe disallowed—now property of Broadley for tithe."
4. "Claims by Frankish that cottage be exempt from tithe disallowed—now property of Broadley for tithe."
5. "Thornton's claim to messuage occupied by Richard Nicholson disallowed, the same being only a cottage."
6. "Whin Fall—claims of unlimited common and mowing disallowed, the same therefore to be allotted under the terms of the Act."
7. "Claims in the Ings and Turf grafts in respect of any messuage or cottage disallowed, the same being mown by the owners of the oxgangs exclusively each year and only being in common after harvest."
8. "No claims allowed to the vicar of Willerby in respect of unlimited grazing on the common and carr of Willerby or of tithes of wool and lamb in Willerby or any payments other than those already paid in lieu of ecclesiastical dues, in Willerby and Staxton other than those usually paid."
9. "Vicar of Willerby; no claims allowed in Ness, except when ploughed and sown."
10. "Vicar; no claim allowed for tithe in kind from close called Town Close in occupation of Thos. Woodall."

The residue of the claims were allowed.

NOTES AND COMMENTS (*continued from p. 105*)

day, 28 March or Monday, 4 April, that is either immediately before or following the Economic History Society's conference at Manchester. Will all those members who wish to receive further details please return the enclosed slip?

AGRICULTURAL HISTORY REVIEW:
INDEX AND TABLE OF CONTENTS

An unforeseen difficulty has arisen with the *Table of Contents* and the cumulated *Index* of the REVIEW. The first table of contents covered volumes I–V, and thereafter it was issued every two years; the last to be printed covered volumes X and XI. The indexes, however, are being issued every five years and the latest index, therefore, covered volumes VI–X. In order to avoid now and in the future the problem of issuing an index that is out of step with the bound volumes, we are issuing with this number of the REVIEW separate tables of contents for volumes X, XI, XII, and XIII, and will continue to issue them yearly in future.

BACK NUMBERS OF THE REVIEW

Members of the Society who have back numbers of the REVIEW which they do not wish to keep are invited to sell or give them to the Society. There is a demand for back numbers, particularly for the earliest volumes up to volume VIII. Correspondence on this matter should be addressed to the Secretary.

GLOSSARIES OF AGRICULTURAL TERMS

A valuable glossary of French agricultural terms has been appearing since October 1960 in *La Revue Norois*. It is being published intermittently: letter A appeared in issue number 28 (Oct.–Dec. 1960), letter B in issue number 30–31 (April–Sept. 1961), letter C in 1962–3, and letters D and E in 1963–4. Some common terms in other European languages are included, for example, the English word *craft*, but the majority of terms are French and include many provincial words. *La Revue Norois* is published at Poitiers, and the author of the glossary is Paul Fénélon of the Collège Littéraire Universitaire de Tours.

Work in Progress

Compiled by ALAN EVERITT

The following list does not lay claim to completeness. It has been compiled from the particulars given in response to a letter circulated to universities and local record offices. It is hoped to publish similar lists from time to time, and the compiler will therefore be glad to receive any information concerning changes of subject and additions to this list.

ADAMS, R. H., *Mount Place, Wellow, Yarmouth, Isle of Wight.*

Land drainage, surface irrigation, and embanking of tidal lands in the British Isles, 1500-1930.

ALLISON, R., *3 Fullerton Road, Carshalton, Surrey.*

The changing landscape of south-west Essex, 1600-1850.

ASKEW, G. P., *School of Agriculture, The University, Newcastle upon Tyne.*

Field evidence of medieval and later land reclamation and drainage of Romney Marsh.

BAINES, MISS P. J., *Linacre House, Oxford.*

British agricultural developments in the inter-war period, 1919-1939, with special reference to the contribution of interest groups.

BAKER, A. R. H., *Department of Geography, University College, Gower Street, London, W.C.1.*

Field systems in Kent.

Farming in France since 1800.

BAKER, D. A., *The Polytechnic, 309 Regent Street, London.*

Kentish agriculture and society, 1660-1830.

BATHO, G. R., *Department of Education, The University, Sheffield, 10.*

Crown and noble estates, 1500-1640.

BATLEY, MRS LILIAN, *227 Dobcroft Road, Sheffield, 11.*

A survey of the court rolls of the manor of Tinsley, Sheffield.

BEST, R. H., *Department of Agricultural Economics, Wye College, near Ashford, Kent.*

The changing location of intensive crops in Kent (with Miss Ruth Gasson).

A comparative analysis of changing land-use patterns in Britain and the United States.

BIRRELL, JEAN R., *Economic History Department, The University, Sheffield, 10.*

The medieval English forest.

BLACKMAN, MISS JANET M., *Department of Economics and Commerce, The University, Hull.*

The food supply of an industrial town: the marketing of foodstuffs in Sheffield and the surrounding area from c. 1750 to the end of the nineteenth century.

BLACKWOOD, B. G., *27 Ryder Crescent, Southport, Lancashire.*

A social history of Lancashire, 1625-60, with special reference to the gentry.

BLUNDEN, J., *Department of Geography, The University, Exeter.*

Agricultural enterprise in the Culm and red loam regions of Devon.

BOWEN, G. C., *R.C.H.M., Rougemont, Manor Road, Salisbury, Wilts.*

Five hundred acres of Celtic and strip fields and associated settlements at Fyfield, Wiltshire (with P. J. Fowler, *et alii*).

BUCHANAN, R. A., *Department of Geography, The Queen's University, Belfast, 7.*

The Irish peasant house.

- BUTLIN, R. A., *Department of Geography, University College, Dublin, 2.*
Agrarian and urban changes in the Irish landscape resulting from plantation schemes in the sixteenth to eighteenth centuries.
- CARLIN, MISS M. N., *St Anne's College, Oxford.*
Christ Church, Canterbury, and its lands from the beginning of the priorate of Thomas Chillenden to the death of Henry VIII (1391-1547).
- CATCHPOLE, J. L., *The University, Durham.*
An analysis of farming patterns in selected areas of Sussex, 1801-1964.
- CHAMBERS, Professor J. D., *Department of Economic History, The University, University Park, Nottingham.*
The agrarian revolution, 1750-1850 (in collaboration with G. E. Mingay).
- CLARK, E. T., *Department of History, University College, Gower Street, London, W.C.1.*
Agricultural investment in England in the third quarter of the nineteenth century.
- CLARKE, H. B., 3 *Pakenham Road, Edgbaston, Birmingham, 15.*
Evesham Abbey estates in Domesday Book and surveys of the twelfth century.
- CLAY, C. G. A., *Trinity College, Cambridge.*
English landownership between 1640 and 1740.
- CLIFFE, J. T., 263 *Staines Road, Twickenham, Middlesex.*
The Yorkshire gentry from the Reformation to the Restoration.
- COLLINS, E. J. T., *Museum of English Rural Life, Reading.*
The Great Depression in arable England.
Historical farm records survey.
Agricultural innovation and output in eighteenth-century England (with E. L. Jones).
- COPPOCK, J. T., *Department of Geography, University College, Gower Street, London, W.C.1.*
Agricultural changes in South-East England, 1877-1964.
Agricultural changes in Buckinghamshire, 1831-1961.
- COSSEY, F., 60 *Sycamore Avenue, Peterborough.*
Farmworkers' trade unions in the fenland area of South Lincolnshire, Huntingdonshire, the Isle of Ely, and the Soke of Peterborough, 1871-1882.
The manor of Fenstanton, Huntingdonshire, from 1086 to 1802.
- DAVIES, J., *Trinity College, Cambridge.*
Landownership in Wales in the period 1850-1920.
- DAVIES, R. R., *Department of History, University College, Gower Street, London, W.C.1.*
Economic and agricultural history of some Marcher lordships in Wales in the fourteenth and fifteenth centuries.
- DILLEY, R. S., *St John's College, Cambridge.*
Rural historical geography.
- DODD, J. P., 21 *Townfield Lane, Frodsham, Cheshire.*
Nineteenth-century agriculture.
The 1854 Crop Returns.
- DODGSHON, R., *Department of Geography, University of Liverpool, 12 Abercromby Square, Liverpool, 7.*
Agrarian change in Roxburghshire and Berwickshire, 1700-1820.
- DOUCH, R., *Institute of Education, The University, Southampton.*
Some aspects of the history of agriculture in the Isle of Portland.

DYER, J. F., *45 Ashcroft Road, Luton, Bedfordshire.*

The investigation of field systems near Knocking Hoe, Beds.

EMERY, F. V., *School of Geography, Mansfield Road, Oxford.*

Regional farming in Wales, 1500-1640.

Agrarian change in Gower, 1500 onwards.

EVANS, B. M., *Department of Geography, United College, Winnipeg, 2, Manitoba, Canada.*

Agriculture and settlement in North Wales, 1545-1670.

EVANS, Professor E. ESTYN, *Department of Geography, The Queen's University, Belfast, 7.*

Survival of primitive agricultural techniques, buildings, and implements.

EVERITT, ALAN, *Department of English Local History, The University, Leicester.*

Northampton: market and county town, 1500-1760.

Northamptonshire gentry in the seventeenth century.

Leicestershire gentry in the seventeenth century.

EYRE, S. R., *Department of Geography, The University, Leeds, 2.*

The limits of improved land and common pasture in north Derbyshire from medieval times.

FIELDEN, K., *Christ's College, Cambridge.*

Richard Cobden and America.

FINBERG, Professor H. P. R., *151 Park Road, Chiswick, London, W.4.*

The structure of rural society in the Anglo-Saxon period.

FLETCHER, T. W., *Department of Economic History, 15 Buccleuch Place, Edinburgh, 8.*

The agrarian revolution in Lancashire.

FOWLER, P. J., *Department of Extra-Mural Studies, Bristol, 8.*

Five hundred acres of Celtic and strip fields and associated settlements at Fyfield, Wiltshire (with H. C. Bowen, *et aliis*).

FREEBODY, MRS NINA K., *Department of English Local History, The University, Leicester.*

History of Scraptoft.

FULLER, MISS G. J., *Department of Geography, The University, University Park, Nottingham.*

Development of agriculture, population, and settlement in the Wirksworth hundred of Derbyshire between Domesday and the Black Death.

FUSSELL, G. E., *55 York Road, Sudbury, Suffolk.*

The classical tradition in West European farming.

GAILEY, R. A., *Ulster Folk Museum, Cultra, Co. Down.*

Innovation and traditionalism in rural Ireland.

GASSON, MISS RUTH. See BEST, R. H.

GENTLEMAN, H., *Department of Geography, The University, Birmingham, 15.*

The agricultural geography of a transect of Warwickshire, south-east of Solihull, as revealed by studies of tithe-maps.

GLASSCOCK, R. E., *Department of Geography, The Queen's University, Belfast, 7.*

The 1334 lay subsidy.

Anglo-Norman settlement in Ireland.

Settlement desertion in the middle ages in England and Ireland.

GRANT, MRS B. F., *78 Twyford Avenue, London, W.3.*

Social and economic history of Wensleydale, Yorkshire.

- GREEN, G. H., *Department of Agricultural Economics, Sutton Bonington, Loughborough, Leics.*
The agrarian and manorial history of Castle Donington.
Agricultural trade on the Trent in the seventeenth to nineteenth centuries.
Little empires on the Wreake, in settlement, expansion, and decay.
Aspects of the agrarian and manorial history of Loughborough.
- GURNEY, MISS R., *Department of Geography, University of Liverpool, 12 Abercromby Square, Liverpool, 7.*
Population and economic changes in the Derbyshire Peak District, 1801-1901.
- HABAKKUK, Professor H. J., *All Souls College, Oxford.*
English aristocracy and gentry in the seventeenth and eighteenth centuries.
- HALLAM, H. E., *Department of History, University of Western Australia.*
The agrarian economy of south Lincolnshire in the later Middle Ages.
- HALLAM, MRS S. J., c/o *Department of History, University of Western Australia.*
Native settlement types, field patterns, and population round the Wash in Roman times.
- HAMSHIRE, J. D., *Department of Geography, The University, Birmingham, 15.*
The evolution of rural settlement in Worcestershire, with particular emphasis on the medieval period.
- HARLEY, J. B., *Department of Geography, University of Liverpool, 12 Abercromby Square, Liverpool, 7.*
Printed and manuscript maps before 1850.
The Hundred Rolls of 1279.
- HARRIS, A., *Department of Geography, The University, Hull* (in collaboration with W. Matzat, University of Frankfurt-am-Main).
Pre-enclosure field systems in the East Riding of Yorkshire.
- HART, CYRIL, *Chenies, Coleford, Glos.*
The archaeology of Dean Forest.
- HARVEY, MISS SALLY P. J., *School of History, The University, Birmingham, 15.*
The valuations, values, and money renders of estates in Domesday Book and some other early medieval texts.
- HAVINDEN, M., *Department of Economic History, The University, Exeter.*
English agricultural history in the seventeenth and eighteenth centuries.
- HIGGS, J. W. Y., *Department of Agriculture, Parks Road, Oxford.*
The agrarian history of England, 1750-1850.
The British plough.
- HILTON, Professor R. H., *School of History, The University, Birmingham, 15.*
Medieval European agrarian history with special reference to Midland England.
- HOCKEY, Rev. S. F., *Quarr Abbey, Ryde, Isle of Wight.*
Medieval Quarr Abbey and its estates in the Isle of Wight.
- HOLLAND, D., *19 Oswin Avenue, Balby, Doncaster.*
The evolution of settlement patterns in South Yorkshire.
The replanning and rebuilding of English estate villages during the eighteenth and nineteenth centuries.
- HOSKINS, Professor W. G., *Department of English Local History, The University, Leicester.*
Harvest fluctuations and English economic history, 1620-1760.
English harvests, 1086-1800.

- HOUSTON, GEORGE, *Department of Political Economy, The University, Glasgow*.
Production, prices, and wages in Scottish agriculture since 1790.
The history of the Scottish farmworker.
- HOWELLS, B., *Southlands, Lamphey, Pembrokeshire*.
Rural settlement and agrarian economy of South Wales, c. 1100-1650.
- HUGHES, P. H., *Ministry of Agriculture, Dundonald House, Upper Newtownards Road, Belfast, 4*.
History of agricultural co-operation in Ireland and Northern Ireland.
- HURST, J. G., *Ministry of Public Buildings and Works, Sanctuary Buildings, Great Smith Street, London, S.W.1*.
Gazetteer of deserted villages in Northamptonshire and Oxfordshire (for the Deserted Medieval Village Research Group).
- HYMANS, P. R., *Worcester College, Oxford*.
The legal aspects of villeinage between Glanvill and Bracton.
- JEFFREYS-JONES, T. I., *Coleg Harlech, Harlech, Merioneth*.
Welsh agriculture, 1700-1900, with special reference to the enclosure movement.
- JENKINS, J. G., *Welsh Folk Museum, St Fagans, Cardiff*.
The Welsh woollen industry.
- JENNINGS, B., *Department of Adult Education, The University, Leeds, 2*.
Economic history of Nidderdale and the Forest of Knaresborough.
- JONES, E. L., *Nuffield College, Oxford*.
The economic history of English agriculture, 1660-1880.
British and European responses to low agricultural prices, 1650-1750.
Agricultural innovation and output in eighteenth-century England (with E. J. T. Collins).
- JONES, G. R. J., *Department of Geography, The University, Leeds, 2*.
Rural settlement in Wales and the parallel implications for early settlement in England.
- KERNTHALER, E. A., *82 Pine Hill, Epsom, Surrey*.
Landownership, land use, and agricultural development in Surrey during the eighteenth and nineteenth centuries.
- KERR, MISS BARBARA, *Grants Farm, Longthorns, Wool, Wareham, Dorset*.
Agricultural history of Dorset, 1750-1850.
- KERRIDGE, E., *Department of Economics, University College of North Wales, Bangor*.
English agrarian history in the sixteenth, seventeenth, and eighteenth centuries.
- KEW, JOHN, *24 New North Road, Exeter*.
The land market in early Tudor Devon.
- KING, E. J., *St John's College, Cambridge*.
The estates of Peterborough Abbey in the Middle Ages.
- LAWTON, R., *Department of Geography, University of Liverpool, 12 Abercromby Square, Liverpool, 7*.
Population distribution, structure, and movement in nineteenth-century England.
- LLOYD, HOWELL A., *Department of History, The University, Hull*.
The gentry of South-West Wales, 1540-1640.
- LONG, W. HARWOOD, *Agricultural Economics Section, University of Leeds, 40 University Road, Leeds, 2*.
The development of Yorkshire farming since the seventeenth century.

- LORRAIN-SMITH, R., *Linacre House, Oxford*.
The economy of the private woodland in Great Britain.
- LOWNDES, R. A. C., *Laburnum House, Great Longstone, near Bakewell, Derbyshire*.
The planning of early fields at Millhouse, Middleton, Westmorland.
- McHUGH, BRENDAN J., *Department of Geography, University College, Galway*.
Rural economy in selected Irish counties.
- McQUEEN, J. D. W., *The Scottish Milk Marketing Board, 95 Bothwell Street, Glasgow, C.2*.
The evolution of the Scottish dairy industry since 1935.
- MARSHALL, J. D., *Bolton Technical Teachers' Training College*.
Effects of industry on agrarian conditions, labour migration, farming, 1750-1850, with special reference to the North-West.
- MASON, MRS K. M., *Reynard Ing, Ilkley, Yorkshire*.
The history of British cheeses.
- MASON, L. M. E., *et alii, St Michael's House, Sutton Bonington, Loughborough, Leicestershire*.
Social survey of a rural district in South Nottinghamshire.
- MATZAT, W. See under HARRIS, A.
- MEAD, Professor W. R., *Department of Geography, University College, Gower Street, London, W.C.1*.
Hedgerows and field boundaries.
Ridge and furrow.
- MILES, R. O., *Balliol College, Oxford*.
A study of English forestry and development in relation to amenity and plantation design.
- MILLS, F. D., *Department of Agricultural Economics, 7 Redlands Road, Reading*.
The National Union of Agricultural Workers: a case study of trade unionism in British agriculture.
- MINGAY, G. E., *University of Kent, Westgate House, Canterbury*.
Social development of rural Kent in the nineteenth and twentieth centuries.
Bank credit and farming in the nineteenth century.
The tours of Arthur Young.
See also under CHAMBERS, J. D.
- MOISLEY, H. A., *Department of Geography, Ahmadu Bello University, Zaria, Northern Nigeria*.
Field systems and settlement forms in the Outer Hebrides.
- NEWTON, K. C., *30 Avon Road, Chelmsford, Essex*.
The manor of Writtle, Essex, 1066-1450, with special reference to the period after 1325.
- OLIVER, J., *Department of Geography, University College of Swansea, Singleton Park, Swansea*.
Weather records and accounts for Wales and South-West England in the seventeenth and eighteenth centuries.
Agro-climatic relationships in Wales and South-West England in the seventeenth and eighteenth centuries.
- OWEN, A. E. B., *79 Whitwell Way, Coton, Cambridge*.
Land drainage and reclamation in the Lindsey marsh.
- OWEN, T. M., *Welsh Folk Museum, St Fagans, Cardiff*.
Peat in Wales.

- PANNETT, D. J., *Department of Geography, The University, Birmingham, 15.*
The significance of ridge and furrow in the agrarian landscape of Warwickshire.
- PERREN, R., *47 Swyncombe Avenue, Ealing, London, W.5.*
The effects of agricultural depression on the English estates of the Dukes of Sutherland, 1870-1900.
- PERRY, B. T., *Department of Geography, The University, Reading.*
Iron Age and Roman settlement and agriculture in Hampshire.
- PLATT, COLIN, *Department of History, The University, Southampton.*
The archaeology of the monastic grange.
- PONTING, K. G., *Department of English Local History, The University, Leicester.*
West of England cloth industry.
- POSTAN, Professor MICHAEL, *Peterhouse, Cambridge.*
The agrarian economy in the Middle Ages.
- PRINCE, H. C., *Department of Geography, University College, Gower Street, London, W.C.1*
Parkland in England.
- PRITCHARD, MRS C., *Department of Geography, The University, Birmingham, 15.*
Changes in land use in the Worcestershire parishes of Bockleton, Kyre Magna, and Tenbury from 1840 to 1950.
- RAMPTON, MRS V. W., *Department of Geography, The University, Nottingham.*
The development of the seaweed industries in the British Isles.
- REYNOLDS, MRS P. M., *Somerville College, Oxford.*
Rural depopulation in Warwickshire during the later Middle Ages and early Tudor period (c. 1332-1553).
- RIDSDALE, J. H., *Department of Geography, The University, Birmingham, 15.*
Changes in the agricultural geography of a group of parishes in north-east Worcestershire from c. 1750 to the present day.
- ROBERTS, B. K., *Department of Geography, The University, Birmingham, 15.*
Settlement, land use, and population in western Arden (Warwickshire) between 1086 and c. 1400.
- ROBINSON, G. G., *10 Ullswater Road, Handforth, Wilmslow, Cheshire.*
An historical study of the Humberhead warplands.
- ROGERS, ALAN, *Department of Adult Education, The University, Nottingham.*
Lincolnshire gentry in the fifteenth century.
- ROGERSON, A. J., *Corpus Christi College, Oxford.*
Some West Riding landowners and their estates in the seventeenth century.
- ROLLINSON, W. R., *Department of Geography, University of Liverpool, 12 Abercromby Square, Liverpool, 7.*
Agrarian history and climate studies in South-West Cumbria.
- ROTHWELL, Professor H., *Department of History, The University, Southampton.*
Hampshire topography.
- ROWE, JOHN, *School of History, University of Liverpool, 8 Abercromby Square, Liverpool, 7.*
Cornish agricultural history in the nineteenth century.
- ROWLEY, R. T., *Linacre House, Oxford.*
The history of the South Shropshire landscape, 1086-1800.

- RUSSELL, R. C., *11 Priestgate, Barton-on-Humber, Lincolnshire.*
The agricultural labourer in Lincolnshire in the nineteenth century.
The parliamentary enclosures of Lindsey.
- RYDER, MICHAEL, *Animal Breeding Research Organization, Field Laboratory, Dryden Mains, Roslin, Midlothian.*
The domestication and history of sheep.
- SCHOVE, D. J., *St David's College, 29 South Eden Park Road, Beckenham, Kent.*
Weather history since A.D. 800, with special reference to manorial accounts and local diaries.
- SHARLAND, J., *21A Hailgate, Howden, Goole, Yorks.*
The development of the rural landscape of Howdenshire during the eighteenth and nineteenth centuries.
- SHEPPARD, MISS JUNE A., *Department of Geography, Queen Mary College, Mile End Road, London, E.1.*
Rural settlement in the East Riding of Yorkshire.
- SHRIMPTON, C., *Trinity Hall, Cambridge.*
Landownership and the Essex farming community in the late eighteenth and early nineteenth centuries.
- SIMPSON, E. S., *Department of Geography, University of Liverpool, 12 Abercromby Square, Liverpool, 7.*
The nineteenth-century agrarian history of the Cheshire dairying region.
- SMEE, MISS DORA K., *Department of Geography, Bedford College, London.*
The influence of soil and slope in 'ridge and furrow' history.
- SMITH, MISS A., *Department of Geography, University of Liverpool, 12 Abercromby Square, Liverpool, 7.*
The inter-relationships between town and country in Lancashire in the seventeenth and eighteenth centuries.
- SMOUT, T. C., *Department of Economic History, 15 Buccleuch Place, Edinburgh, 8.*
Village planning in Scotland, 1740-1840.
- SPUFFORD, MRS MARGARET, *The Clock House, Keele, Staffs.*
Rural Cambridgeshire, 1520-1680.
The social and agrarian history of Chippenham, Cambridgeshire.
- STACY, N. E., *Magdalen College, Oxford.*
The estates of the abbey of Glastonbury, c. 1000-1200.
- STANLEY, M. J., *Department of Geography, The University, Edinburgh.*
The historical geography of the Warwickshire hundreds of Stoneleigh, Kineton, and Marton, c. 1300-1550.
- STAVELEY, M., *Department of Geography, The University, Reading.*
Pre-Domesday geography in Northern Berkshire.
- STEDMAN, M. B., *Department of Geography, The University, Birmingham, 15.*
Studies of land use and settlement in the Forest of Feckenham, Worcestershire.
- STEED, MRS VIOLET, *Lovell's II, King's Sutton, Banbury, Oxon.*
A study of field systems, assarts, and settlements in Wychwood Forest, Oxfordshire.
- STORRIE, MISS MARGARET C., *Department of Geography, Queen Mary College, Mile End Road, London, E.1.*
The evolution of landholdings and settlement patterns in the West Highlands and West Lowlands of Scotland.

- STURGESS, R. W., *Department of Economic History, 15 Buccleuch Place, Edinburgh, 8.*
Nineteenth-century landownership.
English agriculture, 1800-1850.
- SUTTON, J. E. G., *209 Loddon Bridge Road, Woodley, Reading.*
A survey of ridge and furrow in Berkshire and Oxfordshire.
- SWALES, T. H., "*The Jolly Farmers*," *Yaxham Road, Dereham, Norfolk.*
Sales of stock, goods, and chattels of Norfolk monasteries, vicarages, and lay rectories.
- SYLVESTER, MISS DOROTHY, *School of Geography, The University, Manchester, 13.*
Land use and field patterns, present and future, in East Wales and the Borderland.
- THIRSK, MRS JOAN, *History Faculty Library, Merton Street, Oxford.*
The social and economic organization of the forest areas in England and on the Continent of Europe.
Customs of inheritance and their influence upon the occupation of land.
- THOMAS, A. C., *Department of Archaeology, 19 George Square, Edinburgh, 8.*
Celtic and medieval fields with associated settlements from prehistoric to present times at Gwithian and Camborne, Cornwall (in collaboration with others).
- THOMPSON, F. M. L., *Department of History, University College, Gower Street, London, W.C.1.*
History of surveyors and the Surveyors' Institution from the eighteenth century to the present day.
- THORPE, Professor H., *Department of Geography, The University, Birmingham, 15.*
Comparative studies of forms and patterns of rural settlement in the British Isles and Europe.
The evolution of settlement and land use in the West Midlands generally and in Warwickshire in particular.
- TITOW, J. Z., *Department of Economic History, The University, Nottingham.*
The manorial economy of South-West England in the fifteenth century.
- TUBBS, C. R., *The Nature Conservancy, Furzebrook Research Station, near Wareham, Dorset.*
The ecological interpretation of former agriculture on acid soils in the New Forest and east Dorset.
- TURNER, A. D. J., *6 Standgrove, Ardingly, Sussex.*
The population of England in the sixteenth and early seventeenth centuries, 1520-1642.
- VOLLANS, MISS ELEANOR C., *Department of Geography, Bedford College, Regent's Park, London, N.W.1.*
Agriculture and settlement in the Chilterns in the fourteenth century and later periods.
- VOSE, E. K., *30 Avenue Road, Great Malvern, Worcs.*
The administration and economic development of the estates of Worcester priory.
- WEST, F., *Department of English Local History, The University, Leicester.*
The history of Wrangle, Lincs.
- WIBBERLEY, Professor G. P., *Wye College, near Ashford, Kent.*
Agriculture and land-use planning in Kent.
- WILLIAMS, L., *Department of History, The University, Leicester.*
The development of road transport in Cumberland, Westmorland, and the Furness district of Lancashire between 1800 and 1880.
- WILLIAMS, MOELWYN, *Department of English Local History, The University, Leicester.*
The agrarian history of Glamorgan.

WILSON, C. P. H., *North Woodcock, Peddar's Way, East Wretham, Thetford, Norfolk*.
Possible centuriation in England and Wales.

WORDIE, J. R., *17 Cramer Street, Stafford*.
Estate management in the eighteenth and early nineteenth centuries, with particular reference to the Leveson-Gower properties.

YELLING, J. A., *Department of Geography, The University, Birmingham, 15*.
The agricultural geography of eastern Worcestershire, 1550-1870.

YOUINGS, MISS JOYCE, *Department of History, The University, Exeter*.
Monastic lands in the sixteenth century.

Letter to the Editor

SHEEP BREEDS

SIR,—Dr Michael Ryder is to be congratulated on the originality of his approach to the history of sheep breeds in Britain. His article on this subject (AHR XII, pp. 1-12, 65-82) is a notable contribution to knowledge in this field. The techniques described by Dr Ryder, such as the microscopic examination of follicle remains in parchments, permit a more precise assessment than hitherto of the wool and other characteristics of sheep in bygone ages, though they do little to increase our knowledge of the factors underlying the evolution of different breeds. It is here, in seeking to explain the development of sheep types, that Dr Ryder's argument rests largely upon supposition, while his use of historical evidence is not entirely free from bias and misconception. This is especially so in his discussion of the evolution of long-woolled breeds, in which he takes me to task for stressing the direct influence of pasture on the nature of the fleece. He states that "There is no doubt that this change in the type of wool [i.e. the lengthening and coarsening of the staple], beginning in the sixteenth century and continuing into the eighteenth, came about as a result of a change in the type of

sheep, and was not a direct consequence of the increased feed resulting from enclosure." This is much too dogmatic. There is, in fact, very considerable doubt, and the evidence presented by Dr Ryder is hardly convincing. In sum, this consists of two statements: the first, by Sinclair in 1791, that farmers introduced larger animals after 1750; and the second, by Parry in 1800, that "if enclosures have diminished the fineness of the wool, this event has been not the natural effect of the food on the body of the animal, but the moral effect of the change of crop on the mind of the farmer", enabling him to choose "a grosser and more fashionable stock" (pp. 70-1). There are obvious dangers in using late eighteenth-century source-material in the interpretation of sixteenth-century agrarian history, and, in fact, the implication of Sinclair's remark is that Dr Ryder's theory, whatever its merits, is not applicable to the period before 1750. Moreover, as Dr Ryder is no doubt aware, the view put forward by Parry appears to have been held by few of his contemporaries, and those who wrote on the subject were generally of the opinion that enclosure, by increasing the amount of feed, directly influenced the character of the fleece.¹

¹ See, for example, R. E. Prothero (Lord Ernle), *English Farming Past and Present*, 1912, p. 81; E. C. K. Gonner, *Common Land and Inclosure*, 1912, pp. 340-2; W. Youatt, *Sheep, Their Breeds, Management and Diseases*, edn. 1890, p. 70; *An Enquiry into the Nature and Qualities of English Wools, By a Gentleman Farmer*, 1788, pp. 17-22; Hist. MSS. Comm. *Buckinghamshire MSS.*, p. 303.

Even if one disregards these weaknesses in Dr Ryder's arguments, his thesis provides no acceptable explanation of the origin of long-woolled breeds. If, as he claims, enclosure "did not in itself make sheep grow longer and coarser wool", but "enabled bigger and longer-woolled sheep to be kept", it follows that such sheep must have already been in existence before the depopulating enclosures of the late fifteenth and early sixteenth centuries. But Dr Ryder has been unable to find any evidence for this, and his acknowledgement that enclosure "allowed the full expression of a genetic potentiality to produce long wool" (pp. 70, 79-80) is tantamount to an admission that pasturage had a direct bearing on the nature of the fleece. The fact that enclosed lands were at some date stocked with long-woolled sheep does not in any way invalidate this conclusion.

Yours sincerely,

P. J. BOWDEN

Dr M. L. Ryder writes: I regret that Dr Bowden has taken exception to my explanation of his sound historical evidence in terms that would accord with biological laws. I do not question his conclusions regarding the increase in supply of long wool, only his interpretation of the means whereby this change came about.

To simplify the problem, there are three main fleece types: hairy (hill), lustre long-wool, and short-wool (down). And it is impossible to change from one to the other by changing the feed. I have given evidence (*Nature*, no. 204, 1964, p. 555) from the fibre diameter range in old wool that the short-wool and long-wool each arose from a common generalized ancestor with both medium and fine fibres in the fleece. They have evolved from the common ancestor by genetic changes in the proportion of different fibre types in the fleece, and I interpret the medieval long-wool as having a fleece similar in length to the modern Romney breed (p. 80).

In fact, contrary to what Dr Bowden says, I have found specimens with a fibre diameter

range typical of the long-wool (and others typical of the short-wool) in medieval (p. 68) (and even in Roman) wool, but unfortunately the parchment and textile specimens available preclude any measurement of length.

The biological explanation of Dr Bowden's evidence is that the better nutrition allowed selective breeding of the primitive long-wool for increased length. Although better feed will make wool grow somewhat coarser and longer, it quite clearly cannot change the *inherent* ability to produce long-wool, which is what Dr Bowden implies. A long-wool will still produce a longer fleece than a short wool, even when poorly fed. Indeed, the change was not one of length alone, and involved changes of a genetic nature in fibre characteristics such as the appearance of lustre. Enclosure allowed adequate control of breeding for the first time; so long as 'good' and 'bad' animals ran together on the commons, no selection was possible. It is apparent that considerable progress had already taken place by the eighteenth century because Sinclair and Parry refer to the introduction of long-woolled sheep following the later enclosures. I quoted Sinclair and Parry as being the only contemporary writers to anticipate modern laws of heredity and realize the true basis of the changes they observed. This controversy that has unfortunately arisen between Dr Bowden and myself was the same one which Parry's statement was intended to clarify, and which in the words of H. B. Carter (*His Majesty's Spanish Flock*, 1964, p. 420) rises wraithlike in succeeding generations, although today there is sufficient scientific knowledge to put the question of nature versus nurture beyond doubt. Without genetic selection, the variations revealed by changes of diet cannot be inherited.

The ultimate origin of the long-wool is, however, still in doubt, and it is unfair of Dr Bowden to criticize me for not giving a full explanation of this complicated problem which continues to puzzle biologists, when I did discuss various possibilities (p. 79).

Book Reviews

A. H. SMITH, *The Place Names of Gloucestershire. Parts 1-4, Vols. XXXVIII, XXXIX, XL, XLI*, English Place Name Society, Cambridge University Press, 1964. xiv + 268 pp.; xiv + 264 pp.; xiv + 272 pp.; xv + 274 pp. 42s. each.

This addition to the county volumes produced by the English Place Name Society is of great interest to agrarian historians, both as regards the interesting material in volume IV and the detailed analyses of place, field, and other names in volumes I to III. The introduction itself is a model for the handling of place-name evidence for historical and topographical questions, much aided by a sheaf of eight maps. The analyses of place and field name elements which follow are of the greatest assistance, not merely to the Gloucestershire historian, but to anyone concerned with English social and economic history in the pre-industrial era. It goes without saying that for purely agrarian matters, a survey which has so many minor and field names from each parish is of the greatest interest. Many field names indicate what grains were best sown on them (e.g. 'bean land', 'barley hill'), what the soil was like (e.g. 'catsbrain'), or some aspect of husbandry ('lott mead', 'goose marsh', 'hitchen'). Were one also able to locate the field itself, a detailed analysis of old rotations would be much aided. Unfortunately, as anyone who has tried to compare medieval field names with modern estate maps will know, in many parishes a clean sweep has often been made of pre-enclosure field nomenclature.

A topic much helped by place names is that of local communications. Manorial documents, at any rate in medieval times, contain only scattered references to the roads. In a systematic collection of names such as this it is possible to get a much better idea of the road system than is possible from manorial and legal sources. There is, of course, a separate section on road names, but a lot of additional information for minor tracks is to be found

in the field name sections of each parish.

Some historical explanations are not entirely convincing. The interpretation of 'Charlton' as 'land recovered from waste on the edges of an estate for the use of peasants' seems unnecessarily elaborate (I, p. 111). The historian might also wonder whether some indication that an apparently minor place was once a village would not be worth making. For example Bidfield in Miserden parish, that is 'Bida's piece of open countryside' (I, p. 130), was a taxation unit in the fourteenth century. Although deserted by 1380, the earthworks of its houses can still be found. Another of these places, still a local name, has been missed altogether. The village of Sevenhampton in the Colne Valley has a ghost village a mile or two to its west, shown by identifiable earthworks, and known locally as 'Old Sennington', a name not recorded. Indications of other deserted sites are also lacking. Since place-name investigators may well come on evidence of the desertion of occupied sites sooner than other specialists, it is a pity some attention is not given to this aspect of place names.

Gloucestershire was a county of many occupations. The Cotswold parishes have many place-names indicating the once predominant interest in sheep. Bisley parish, within which Stroud and its industries grew, has an impressive number of minor names, many indicating its industrial past. Parishes in the Hundred of St Briavels abound with names indicating coal and iron working. All these, if plotted on maps, could help, along with other sources, in the reconstruction of the county's past economic and social life. Nor should a reference to folklore be omitted. What was more important to communities that lived from the soil than good weather? Is this the reason for the large number of fields called 'Cuckoo Pen'? Is the reference to the penning of the cuckoos to prevent the passing of summer only jocular? (I, p. 43).

R. H. HILTON

E. L. JONES, *Seasons and Prices. The Role of the Weather in English Agricultural History.*

Allen and Unwin, 1964. 194 pp. 28s.

Weather no longer exerts a dominant influence on English prices, but we need to assess farmers' complaints in the eighteenth century when, as Ashton put it, "what was happening at Westminster or in the City was of small account compared with what was happening in the heavens." This study of contemporary links between weather and agriculture since about 1700 is primarily intended, to use the author's words, "for the layman who is interested in the history of farming." However, its novel approach and conclusions should make it useful to all agricultural historians.

Weather chronologies, hitherto published for Britain by Lowe, Walford, Wilde, and others, have generally been unreliable in both content and chronology. The unpublished collections of Britton, Jeffery, and T. H. Baker contain well-documented information not found in the standard printed sources. The present work is based especially on the materials collected by T. H. Baker for a proposed third edition of his book (1883), the materials of which are now in the library of the Royal Meteorological Society. Chronology in the present work is nevertheless relegated to the final part of the book and consists of short summaries for each year since 1728. These summaries are much abbreviated, but they are useful especially as they include information from unpublished farmers' diaries. In this chronology some years meteorologically outstanding, such as the wet year of 1872, are not mentioned; agriculturally it was overshadowed by 1879. The drought of 1921 is not mentioned in the book at all, perhaps because by that date weather had become less important than formerly.

The rest of the book is devoted to interpretation and discussion. The wisdom of the farmers is enshrined in the superstitions about Hunger-bournes, streams which break forth, as we now realize, only after a series of wet years and which were regarded (pp. 54-5) even in seventeenth-century Wiltshire (and

in White's Selborne in 1764-74) as a sign of scarcity. The significance of autumn wetness in reducing the acreage sown for the subsequent wheat crop is now appreciated and is noted by the author. The effects of pre-June drought in reducing the hay-crop have long been recognized.

Livestock are affected by the weather in many different ways. Sheep-rot (e.g. 1828-31, 1879-81) follows runs of wet summers as in the twenties and seventies of last century. Cattle are affected by long droughts as in 1826, 1836, 1844, 1864, and 1937-8. Pigs are affected by the acorn crop, abundant in such years as 1762, 1781, and 1783. Winter-fattening of both sheep and cattle was so dependent upon the turnip by the late eighteenth-century that the series of cold winters between 1789 and 1799 caused consternation. The temperatures in the first quarter of the year indeed still determine the seasonal losses of sheep and lambs (*cf.* 1895, 1916, 1963).

The complexity of the relationships is emphasized. There is no attempt to introduce statistics—even meteorological data—or to apply modern correlations to the past. Thus we now find that a mild March normally leads to good milk yields not only in April and May but also in September, and that apple scab is linked with wetness in April and May but potato blight with wetness in July. Dry Junes in the period 1780-1810 have suggested to L. P. Smith ('The Significance of Climate Variations in Britain', *Unesco Symposium: Arid Zone Research*, xxi, 1963, pp. 455-63) that hay-harvests should have been much better than, e.g. in the 1830's or 1910's. There is indeed no attempt to discuss the effects of climatic fluctuations. However, this is another story, and the views of contemporary farmers are often more reliable than those of modern statisticians. We must meanwhile be grateful to the author for explaining in a clear and well-documented manner the extent to which the relationships between weather and agriculture were already understood. These relationships, Ashton has said "seem to have evaded the notice of social historians." There

is thus food for thought in the varying numbers of complaints about the weather listed for different years, the peak year (*cf.* pp. 44, 55, 57, 95, 121, 150, 151) being 1789.

D. J. SCHOVE

MARGARET FULLER, *West Country Friendly Societies*. Oakwood Press for the University of Reading, 1964. ix + 173 pp. 63s.

A distinguishing feature of the village friendly societies of Somerset and of the immediately contiguous areas of the neighbouring counties is that they had decorative brass polehead emblems which were carried by members at their annual festivals. Most of the emblems, of which the maker is known, were the product of the Bristol brass industry which provides one reason for their highly localized occurrence. More than 900 of these brass emblems are now in the Museum of English Rural Life at Reading. To this collection this volume provides an excellent illustrated catalogue. But Miss Fuller has used this opportunity to make a study of rural friendly societies in a particular part of England which complements P. H. J. Gosden's general account of *The Friendly Societies in England, 1815-1875* (Manchester, 1961). Involved in the economic vicissitudes of small communities, the rural friendly societies never achieved permanent financial stability, but the benefits they provided from the contributions of their members included medicine and money for the bare necessities of life when they fell sick or grew old, and a decent burial when they died. The companionship they afforded and the convivial feast day also helped to reduce the bareness of life for many. Of the annual festivals of friendly societies this volume provides a number of excellent photographs of such occasions in the early years of this century. As the state began to pay old-age pensions and sick insurance, the friendly societies lost much of their *raison d'être* and a great number have now ceased to exist. This volume is a most useful by-product of the activities of the Museum of English Rural Life at Reading.

W. E. MINCHINTON

H. B. CARTER, *His Majesty's Spanish Flock. Sir Joseph Banks and the Merinos of George III of England*. Angus and Robertson, 1964. 520 pp. 90s.

Mr H. B. Carter is an Australian wool biologist, now working in Great Britain, and this book is one result of his interest in the number and type of Merino sheep that entered Australia at the end of the eighteenth century. It provides the first reliable account in narrative form of the way in which the unique fine-woolled sheep, long jealously guarded by Spain, came into British hands, and uses original sources, mostly unpublished before, the main one being the papers of Sir Joseph Banks P.R.S.

Mr Carter demonstrates that the principal agency in obtaining the Merino for the British Commonwealth was the Royal flock, established about 1790 by devious means through the partnership of George III with Banks. This partnership forms the theme of the book. He considers that the flock was perhaps the first British example of organized public research in agriculture, and the main body of this painstakingly detailed account is concerned with the period 1780-1820 within which the royal flock was in existence. Its vicissitudes are therefore closely associated with a turbulent period of European history and a time of interest in agricultural and (notably wool) improvement in Britain.

Mr Carter has dealt with the problem of whether to use a chronological or a subject approach by superimposing subjects on a chronology. The work is accordingly divided into 14 chapters beginning with *The Background, 1700-1800*, and ending with *The Legacy, 1788-1962*. Although this approach leads to some overlapping of dates and much repetition, it helps to make each chapter stand alone.

In his first chapter, Mr Carter discusses Spanish wool production and the requirements of the British wool manufacturing industry. At the end of the eighteenth century the production and manufacture of wool became the key to many mercantile and military problems besetting European politics, and

wool was a theme in the economic duel with France with important consequences for the agricultural and manufacturing industries of the two nations. The battle was one of quality as much as of cheapness of manufacture, so adding to the strategic importance of Spanish fine wool.

The Foreground (1782-1788) describes the way in which Sir Joseph became involved with the Lincolnshire longwool growers in their abortive contest with the worsted manufacturers of Yorkshire. The price of combing wool had fallen so much that the growers wanted the law to be revised to allow limited export of wool. Banks was able to ascertain that there were pockets of longwool production on the Continent that were sufficient for local needs, interest there being directed more to the supply of Spanish fine wool than to the possibility of obtaining English longwool. Banks's attention was drawn to the wool of Saxony which had been improved by the importation of Spanish Merinos—an observation that remained dormant in his mind until it flowered into his own interest in fine wool improvement.

Chapter III, *The Savants (1782-1794)*, deals with the co-operation of Banks with the French scientists who were carrying out wool improvement experiments. Among these Broussonet was prominent in assisting him to obtain a few Merino sheep for his own experiments in 1785. It was from the same source that Banks obtained more sheep as the basis for the flock of George III, but the French were not told that they were for the king. The next chapter (1787-1792) discusses the desire of the king to establish a flock of Merinos alongside flocks of other sheep in his possession, and the secret plans involved in the smuggling of sheep from Spain. Expense was no object, and the most important route was through Portugal. Between 1788 and 1792, 14 rams and 73 ewes were obtained through this channel, and another 40 animals later on from the court of Spain.

In *The Faithful Shepherd (1788-1811)* is described the way in which Banks, the President of the Royal Society, gradually assumed

the informal rôle of scientific shepherd to His Majesty's Spanish flock. As he did so he gave his own small flock to Arthur Young so that he could devote all his energies to that of the king. But even the P.R.S. suffered restraints within the royal gates, and Banks was continually frustrated by inexperienced farm workers and disease amongst the sheep. He did, however, build up a lasting association with the king's shepherd who sent him monthly returns that now provide valuable statistics, and Banks himself attended all important events, such as shearing, when a wool stapler graded and valued the wool.

The Royal Fleece (1788-1809) describes the way in which Banks kept in touch with the crossing and wool improvement experiments carried out in France. He was able to show by keeping his Merinos on the best possible pasture that "breed alone directed the fineness of the pile, and that keep, when the pile was really fine, had little if any influence in making it coarser". Yet he found it difficult, as it is indeed difficult today, to convince manufacturers and many breeders of British sheep that this is so. Banks continued these experiments with the royal flock and put forward a project for spreading the Spanish breed through Britain, as was being done in France.

In 1791 when the royal flock numbered over 150 animals George III began to grant Merino sheep to a few favoured persons interested in establishing flocks, or wishing to improve British breeds such as the Ryeland and Southdown, and Mr Carter traces, by number, the fate of each animal from the flock. In *The Twilight Years (1810-1820)* Mr Carter summarizes the fortunes of the flock, and shows that by 1810 other European countries, notably France, were well ahead of Britain in Merino breeding. Britain suffered the disadvantage of too small an original introduction, which meant that there were insufficient numbers to provide replacements for the flocks established in Britain. The problem of Britain's supply of fine wool was solved for her by the colonial settlers of New South Wales whose Merinos

multiplied rapidly under a sun similar to that of Spain so that by the mid-nineteenth century Australia outstripped the Continent as a supplier of fine wool. This enabled Britain to concentrate on the carcase at home, and emerge as the leader in the development of mutton breeds. The last flock return, dated January 1813, records 2,700 animals, most of which were sold later in the year in poor condition. The deaths of the king and Banks within a few months of each other in 1820 finally ended the enterprise, but the remnants of the royal flock apparently existed in Essex until 1895.

An excellent appendix of maps and tables ameliorates the difficulty imposed by the author's verbosity and tortuous style in extracting the main points from the text, but it is a disadvantage that these, like the figures and plates, are not referred to in the text. Altogether the book makes fascinating reading, and we look forward to further volumes from Mr Carter following up various points concerned with the legacy of the Spanish Merino in the British Commonwealth.

M. L. RYDER

CHARLES VARLEY, *The Unfortunate Husbandman*, edited by Desmond Clarke. Oldbourne, 1964. 118 pp. 21s.

Charles Varley, or Varlo as he was also called, was born about 1725 on the borders of Yorkshire and Lincolnshire, then "the greatest hemp and flax country in England." Although a farmer's son, he worked as a labourer before going to Ireland, where his knowledge of flax was a considerable asset. He had a successful career there as steward, government flax-growing instructor, and eventually as grazier and merchant. The lure of authorship may well have been his undoing, for he left Ireland after the publication of his first book in 1766 and thereafter led a wandering life as farming expert and agricultural writer which can hardly have been remunerative.

Varley published eight works in all, but as the material in each succeeding volume was largely taken from its predecessors, he was

not quite so prolific an author as might appear at first sight. His second book, *The Modern Farmer's Guide* (1768), was prefaced by the autobiography of a 'Real Farmer'. Mr Fussell was the first to draw attention to the literary quality of this piece of writing, but it has been left to Mr Clarke to identify the author. Varley came from a level of society which rarely found literary expression so that he presents pictures of farm life and work not to be found elsewhere. On the other hand, he suffered from the wrongheadedness and dogmatism of the self-educated man and consequently produced large quantities of rubbish as well.

An uneven and chaotic writer such as Varley is well suited to the anthologist. Unfortunately, the editing of this book does not reach acceptable standards. There is no indication of the source of the material reprinted, although it is drawn from more than one of Varley's works, nor are there any references, index, or bibliography. Mr Clarke should have made a wider selection from Varley as the 'Real Farmer' is too slender to stand alone, and there are plenty of vigorous passages to be found elsewhere in his writings. Still, there is enough to give the reader a taste of Varley, who is always original and can often be entertaining and instructive.

E. R. R. GREEN

ANNE HUGHES, *The Diary of a Farmer's Wife, 1796-1797*. Edited by Suzanne Beedell. Countrywise Books: *The Farmers Weekly*, London, 1964. 188 pp., illus., 27s. 6d.

Diaries kept by English farmers or their wives in any century are so rare that the publication of any document falling under this heading gives rise to pleasurable expectations in the minds of agricultural historians. Unfortunately these expectations are not fulfilled by what is presented to the public as the diary of Anne Hughes, farmer's wife in an unnamed and apparently unidentifiable village somewhere in the Chepstow-Gloucester-Hereford area (these are the only local place-names mentioned in the diary, except for farm names and an obscure place called 'Telforde' on

page 40). It is curious that the local market town is never identified, although Anne's husband went to market there frequently, but, contrary to what might be expected, not on any fixed day of the week.

The material now offered in book form was originally serialized by *The Farmers Weekly* in 1937 from what was said to be the original manuscript in the possession of a Mrs Jean Preston. Neither the original manuscript nor Mrs Jean Preston can now be traced. The diary, it must be confessed, is entertaining enough considered purely as light reading, being full of the stock rustic japes of popular fiction—ghosts in the graveyard and lanes, witches in the deserted cottage, the tribulations of young love, and immersions up to the neck in the muck-heap. But as one progresses through the diary a number of disturbing questions arise which, to a professional historian, raise serious doubts as to its authenticity. The social structure of the village seems curiously idyllic. Mrs Hughes never mentions tithes, rents, or rent-days. There is a local landowner, Squire Manton, named only once (p. 131), who hovers vaguely in the background, while the two daughters of a former squire hobnob with the local farmers. Mrs Hughes is extraordinarily friendly with the wife of the local (and anonymous) peer at the 'Big House', but this Lady Susan Blank dies on 3 July 1796. No obituary of any Lady Susan is to be found, however, in either the *Annual Register* or the *Gentleman's Magazine* for 1796. There is no mention in the diary of a village constable, an overseer of the poor, or a surveyor of highways, although to judge by the state of affairs described in the diary, the place was much in need of their services. Nocturnal burglaries are punished on the spot with rough justice. Rough as it is, this justice is fantastically mild by eighteenth-century legal standards. Odder still are the ecclesiastical arrangements, which do not conform to eighteenth-century realities. The village church is served by a succession of 'supply' parsons with no visible patron, and on one occasion there is a meeting of villagers to discuss having a parson to live in the village

(pp. 81-2). These village Hampdens must have been crypto-Methodists.

Some of the agricultural practices seem odd too: 3 July is too early to start cutting corn (pp. 56-7), and 20 March late for threshing it (p. 31). Ninepence a bag is an impossibly low price for wool (p. 52), and no trace occurs in the diary of the great dearth of 1795-1800. Most damning of all, Mrs Hughes gets her calendar hopelessly and erratically wrong: e.g., 10 February 1796 is noted down as a Sunday, but was in fact a Wednesday; 16 February 1796 is given as a Sunday but was a Tuesday; 3 March 1796 is stated to be a Sunday but was in fact a Thursday, and so on. No wonder that under 17 January 1797 the extraordinary entry occurs: "Yester eve we toe church, Passon not now sticking to the Sabbath for his services!" The suspiciously consistent 'olde Englishe' in which the diary is written consists largely of correct spellings which look archaic because a final 'e' has been added or the final letter doubled. These are interspersed with the more difficult words spelt correctly or almost correctly, and the whole is peppered with dollops of dialect. The question inevitably arises: did someone in 1937 pull wool over the eyes of *The Farmers Weekly*?

W. H. CHALONER

CHRISTABEL S. ORWIN and EDITH H. WHET-
HAM, *History of British Agriculture 1846-1914*. Longmans, 1964. xx + 411 pp. 63s. This eagerly awaited work provides a much-needed modern account of the fundamental changes that occurred in British agriculture between 1846 and 1914 for all those historians, economists, and agriculturalists, concerned with the subject or the period. The authors wear their learning lightly, their writing is lucid and, on occasion, moving, and most delightful and felicitous tribute is exacted from nineteenth-century literature, Wilde for Jeffries and Tennyson for Hudson being refreshing substitutes. It is good to see John Steadyman of Wearywork Hall so justly resurrected.

This is a work of history that some today,

particularly among economic historians, may consider old-fashioned in its approach. In the authors' words, and already indicated by their choice of opening date, 1846-1914 was a period "when international trade exercised an increasing influence upon the markets of British farmers." This surely was the crucial determinant and yet information about, or analysis of the rôle of, imports is scarce. Prices too are inadequately treated, Sauerbeck being of limited use, and Rhee's rent series equally open to criticism in terms of coverage (Charts III and IV). Chapter 13 includes an interesting discussion of productivity that might have been taken further: gains in productivity are much more difficult to achieve in the livestock than in the arable sector, as the Russians know to their cost.

Two other topics that could have been further explored are Ireland, whose progress since the Famine is well illustrated by the Irish agricultural statistics with their valuable export series, and is not to be guessed at from the two pages devoted to the Irish Land Problem (pp. 290-2); also the rôle of the urban horse, whose numbers increased rapidly during the century (*cf.* Select Committee of the House of Lords on Horses, H.C. 325 of 1873), and whose mouths must have consumed a considerable proportion of the remarkable increase in the acreage of hay shewn in the Agricultural Returns. But there is scope for a major work on both Anglo-Irish trade and the rôle of the horse in the Victorian period.

A noble attempt to cover the formidable regional complexities of the whole of Britain almost succeeds, but, strangely enough, falters most noticeably in the fascinating sections which analyse so perceptively the social structure of the farming community, and where the authors' sympathies evoke most feelingly rural life in Victorian England. The contrast between Wales and Scotland on the one hand and England on the other is well brought out, but the question remains—surely life in the Pennines of northern England, a not inconsiderable stretch of country, has more affinity with that of west-

ern and northern Britain than with that of southern England? All three regions (and the south-west) fall into the Highland zone with its basically pastoral economy. The typical unit was the family farm employing at most one regular man who was usually a surplus son of a neighbour living (or eating) in. He was thus of the same social class as his employer, and 'agricultural labourer' and 'union' were foreign concepts.

It is disturbing to note that the "traditional four-course rotation was only dominant in the north and west of England" (p. 124), that a short discussion of potatoes (pp. 6-7) does not mention Lancashire, and that the section on cheese (pp. 365-6) omits both the Lancashire and the Wensleydale varieties. A more astonishing omission is any reference to Dr E. L. Jones's article 'The Changing Basis of English Agricultural Prosperity', *AHR* X (1962). Misprints are few and confined to the tables, the only one of importance being the absence of horses from Table II (p. 121). But the inevitable sectional criticism cannot diminish the stature of Mrs Orwin's and Miss Whetham's achievement, which succeeds remarkably in solving the complex problems of writing a history of British agriculture between 1846 and 1914. It deserves a place on the bookshelves of all readers of this Review.

T. W. FLETCHER

MICHAEL TRACY, *Agriculture in Western Europe. Crisis and Adaptation since 1880.* Jonathan Cape, 1964. 415 pp. 55s.

The author's chief purpose in writing this book is to set out the real nature of Western Europe's farm crisis and to urge more realistic and positive approaches to policy-making than in the past. Few people are more competent to undertake this task. Mr Tracy's work as an agricultural economist on the staffs of the United Nations in Geneva, with P.E.P. in London, and latterly with O.E.C.D. in Paris, has enabled him to view the contemporary agricultural scene in Western Europe with excellent overall perspective. Furthermore, Mr Tracy has gone to great pains to

analyse the course of agricultural development and policy-making in Britain, Denmark, France, and Germany since the last quarter of the nineteenth century. It is this attempt to arrive at a fuller understanding of present-day problems in terms of comparative historical evolution that comprises the major part of Mr Tracy's book and which will prove of greatest interest to the economic historian. Students of agricultural adjustment will doubtlessly agree with the author that "the problems of agriculture are . . . too often seen in the limited context of a given country and of the present time."

Mr Tracy contends that European agriculturalists have been subjected to essentially similar economic forces over the last eighty or ninety years. The author's purpose is to show how and why reactions varied from period to period and to what extent policy measures were effective from place to place. This book, therefore, is largely concerned with the effects of the growth of overseas competition from temperate foodstuffs. Mr Tracy is at his very best in tracing the development of attitudes towards protection and state intervention in agricultural affairs. The whole book is noteworthy for its lucidity, terseness, and balance. Good structure adds to the clarity of Mr Tracy's exposition.

The book is divided into four parts. In the first of these, the author deals with the problems created by overseas competition at the end of last century. He shows how a deep-seated belief in the virtues of free trade and an inability to adapt inevitably led to the collapse of a large part of British agriculture. In Denmark, on the other hand, the family farm structure and an educated peasantry proved more flexible. Cheap imported grains provided a basis upon which lucrative export markets for pigmeat, butter, and eggs were built up. In France and Germany, however, protection was the order of the day. It went hand in hand with military and commercial rivalry and fundamentalist attitudes. Lobbies organized by large grain-growing interests were particularly powerful in both countries.

In the second part of his book Mr Tracy turns to the period between the two world wars. This was an era of growing economic nationalism, resulting from a failure to tackle commodity problems and the economic depression of the 'thirties on an international basis. Britain found herself the odd-one-out, and was compelled to abandon her free trade position in order to preserve her own and commonwealth agricultural interests. State aid also proved essential in Denmark, since even the development of a particularly efficient agricultural production and marketing system could not secure vital export outlets. In France, the ruthless logic of protection led to deeper and deeper commitments. As the author comments, "in general, agriculture in France has hardly seemed to be a subject for economics." But it was only in Nazi Germany that the approach to policy-making was other than piecemeal. Under the leadership of Walther Darré a comprehensive programme for agricultural production and marketing was brought into being. As the author points out, it is ironic that much of Darré's "thinking on agricultural matters has persisted, both in Germany and elsewhere."

In part three, Mr Tracy examines the growth of state intervention in the period since World War II. Agricultural lobbies had grown in power and importance with the urgent need to tackle food shortages and balance of payment difficulties. The need to raise productivity and to improve the living standards of agriculturalists became common aims throughout much of Europe.

Lastly, in part four, Mr Tracy considers the attempts to integrate agriculture within a European economic framework. Much excellent material is summarized here, especially concerning Britain's attempts to overcome the chief obstacles to partnership. However, the inevitable difficulty of separating rather ephemeral detail from the more significant and long-term issues tends to tax both author and reader. Nevertheless, no reader could possibly fail to appreciate the logical connections between the arguments threshed out in Brussels and the national traditions

and attitudes formed over the previous seventy-five years.

Mr Tracy's conclusions, likewise, are very clearly made. Historical and economic analysis have convinced him that there are no simple solutions to Europe's agricultural problems. Instead, he wisely stresses how complex and far-reaching these problems really are. They range from a need to improve the structure and efficiency of production and marketing to providing greater trading opportunities for primary producing countries overseas, and from raising farmers' living standards to tackling food shortages in under-developed areas. The main lesson of the last one hundred years, according to Mr Tracy, is first and foremost that successful policy-making depends upon the correct identification of problems. Secondly, there is abundant evidence from the past to show the need for co-ordinating plans on the basis of broad international agreement. Lastly, he urges the need for pragmatism and declines simple 'economic' solutions which disregard political possibilities and social realities.

It is probably true that the economic historian will find the latter part of Mr Tracy's book of limited interest, but he is likely to find the remainder indispensable. Students, too, will find this an admirable introduction to the agricultural history of our times. Mr Tracy has a particular gift for lucid exposition and despite extensive research over a very broad field he has produced a concise and eminently readable study. The attachment of an extensive bibliography is to be commended.

J. D. SYKES

SIR SAMUEL WADHAM, R. KENT WILSON, JOYCE WOOD, *Land Utilization in Australia*. Melbourne University Press, 4th edition, 1964. xv+295 pp., illus. 50s. (Australian). "The country, my Lord, is past all dispute a wretched one." So reported an officer with the First Fleet, and so the Australian environment has frequently appeared to later settlers. Much of the soil is poor; rainfall is generally adequate in coastal regions, but is extremely capricious and dwindles rapidly inland; and

the vastness of the country imposes tremendous economic problems. Yet in such conditions has been established a highly successful primary industry which has contributed greatly to the economic progress of Australia.

Land Utilization in Australia was first published in 1939, has been substantially revised on three occasions, and experienced a change of authorship at the third edition when R. K. Wilson replaced the late G. L. Wood, and Joyce Wood prepared the excellent maps and diagrams. The new edition is an invaluable account of land use by Australia's major primary industries: wool, wheat, dairying, meat, sugar, and fruit. Land use has been determined by the interaction of climatic, economic, technical, and political factors. Climate has been the most important influence, but the historian will probably find this work most interesting for its account of the technical and scientific developments that have enabled various types of farming to be adapted to the difficulties of the environment.

The book contains a number of historical sections which are generally unsatisfactory. For these the authors have relied on outdated sources and have missed the opportunity of including in the revised edition the findings of a new generation of economic historians. On page 97 the authors argue that without the wool industry "there would have been little progress before the gold discoveries [of the 1850's] and little stability after the gold boom was over. For Australia in the nineteenth century . . . wool became the great national industry—the staple." The first part of the statement is questionable, the rest is wrong. Professor N. G. Butlin's estimates show that in 1861 (the earliest year for which estimates are available) the pastoral industry accounted for 7·8 per cent of gross domestic product at current prices. This share rose to 17·6 per cent in 1875 and fell to 12·5 per cent in 1890 and 8·6 per cent in 1900. During this period the growth of the Australian economy was centred not in the pastoral industry, nor indeed in the primary sector as a whole, but in secondary industry. In 1861 the share of secondary industry (manufacturing and con-

struction) in G.D.P. was 13.0 per cent, in 1875 20.7 per cent, in 1890 22.7 per cent, and in 1900 17.6 per cent. Between 1861 and 1889 secondary industry grew faster than any primary industry. As for stability, capital formation in the pastoral industry was more unstable than in any other sector of the economy.

Some other points deserve comment. The depression of the 1840's is explained by falling wool prices. Professor S. J. Butlin's work, showing that the depression was mainly the result of rising production costs as the pastoral industry moved into outlying areas, is ignored. Similarly, the economic collapse of the 1890's is attributed to the "world economic crisis of 1893," although N. G. Butlin has shown it to be the result of events within Australia. The recent study by Perry of land

settlement in New South Wales to 1829 is not used; nor is Dunsdorfs'—admittedly contentious—history of the wheat industry. The strangest neglect of all is of the essays on pastoral expansion during the later nineteenth century by N. G. Butlin, Barnard, and Cain in A. Barnard (ed.), *The Simple Fleece*, although the technical articles in the same volume are used.

The historical weaknesses of *Land Utilization in Australia* have been laboured for the benefit of English readers who may not be familiar with Australian economic history. But it should be remembered that, in the treatment of its main theme, the book is authoritative and an essential reference work for all who wish to understand the development of primary production in Australia.

L. A. CLARKSON

NOTES ON CONTRIBUTORS

Alexander Fenton is Assistant Keeper, National Museum of Antiquities of Scotland, and Secretary of the Society for Folk Life Studies. He has written many articles on Scottish agricultural history.

J. Geraint Jenkins, M.A., F.S.A., is Assistant Keeper at the Welsh Folk Museum and editor of *Folk Life*. His publications include *The English Farm Wagon* (1961) and *Traditional Country Craftsmen* (1965).

Brian Loughbrough, M.A., is Assistant

Keeper at the Museum of English Rural Life, Reading University.

T. C. Smout is a lecturer in economic history at Edinburgh University. His main interests are in Scottish economic and social history in the seventeenth and eighteenth centuries, and his publications include *Scottish Trade on the Eve of the Union, 1660-1707* (1963).

CORRECTION: The biographical details for E. A. Cox and B. R. Dittmer in the last issue omitted to mention their M.A. degrees of the University of London.

Books Received

CAMPBELL, CHRISTIANA M., *The Farm Bureau*. University of Illinois Press, Urbana, 1962. viii+216 pp. \$4.75.

CARSTENSEN, VERNON (ed.), *The Public Lands. Studies in the History of the Public Domain*. University of Wisconsin Press, Madison, 1963. xxvi+522 pp. \$6.75.

GRAY, C. M., *Copyhold, Equity, and the Common Law*. Harvard University Press, 1963. 254 pp. 48s.

GUILLET, EDWIN C., *The Pioneer Farmer and Backwoodsman*, 2 vols., University of Toronto Press and Oxford University Press, 1964. xxvii+343; xiii+390 pp. £8.

GUPTA, SULEKH C., *Agrarian Relations and Early British Rule in India. A Case Study of Ceded and Conquered Provinces (Uttar Pradesh, 1801-33)*, Asia Publishing House, 1963. xv+338 pp. 45s.



CAMBRIDGE

The Agricultural Revolution in South Lincolnshire

D. B. GRIGG

A study of the economic and technological changes in the agriculture of South Lincolnshire between 1760 and 1860, showing how regional differences affected the rate of progress, and how technical and economic conditions changed as a result of the Napoleonic Wars.

Ready December, 50s. net

Township and Borough

F. W. MAITLAND

A reissue of the Ford Lectures which Maitland delivered at Oxford in 1897. His subject is the houses and fields of medieval Cambridge, the growth and transfer of property, the part played in property-owning by local families, the church and the borough, and the survey of documentary evidence. Medieval Cambridge emerges clearly from these lectures.

35s. net

The Place-Names of Gloucestershire Part IV

A. H. SMITH

Part IV completes the study of the place-names of Gloucestershire. The book provides a general historical introduction, and relates the names to the varied topographical background of the Cotswold Hills, the Severn valley and the Forest of Dean. Part IV also contains a list of sources, analyses of elements and personal names, the index and distribution maps. *English Place-Name Society, Volume XLI.*

42s. net

Essays on Crop Plant Evolution

EDITOR:

SIR JOSEPH HUTCHINSON

A survey by a number of authorities of the history of the development of some widely cultivated crop plants. Crops considered are: maize, sorghums, temperate cereals, potatoes, forage grasses and legumes.

16 plates. 50s. net

From all booksellers

CAMBRIDGE UNIVERSITY PRESS

A Medieval Oxfordshire Village

Cuxham: 1240—1400

P. D. A. HARVEY

'... competent and careful. . . This authentic description will undoubtedly be of high value in future histories of agrarian life in medieval England,' THE TIMES LITERARY SUPPLEMENT 5 maps 30s net (Oxford Historical Series)

OXFORD UNIVERSITY PRESS

THE ECONOMIC JOURNAL

No. 298

June 1965

Vol. LXXXV

I. ARTICLES

- | | |
|--|-----------------------------------|
| Wages and the Productivity of Labour | L. SHEYNIN |
| Commercial Banks' Portfolio Behaviour | F. BRECHLING and G. CLAYTON |
| Investment and Discount Rates Under Capital Rationing—
A Programming Approach | W. J. BAUMOL and R. E. QUANDT |
| The Growth of Capital Stock | M. NICHOLSON |
| "Credit Rationing" and the Keynesian Model | A. J. L. CATT |
| The Irrelevancy of the British Differential Profits Tax:
A Comment | G. C. HARCOURT and G. WHITTINGTON |
| Little's Criterion—An Empty Box? | H. F. LYDALL |
| A Quantity Theorist's Monetary History of the United States | H. G. JOHNSON |

II. REVIEWS

III. NOTES AND MEMORANDA

IV. RECENT PERIODICALS AND NEW BOOKS

MACMILLAN & CO. LTD, LONDON, W.C.2

Applications for Fellowship:

ROYAL ECONOMIC SOCIETY
21 Bentinck Street, London, W.1

ETUDES RURALES

REVUE TRIMESTRIELLE
D'HISTOIRE, GEOGRAPHIE, SOCIOLOGIE
ET ECONOMIE DES CAMPAGNES

publiée par l'Ecole Pratique des Hautes Etudes

Sixième section—Sorbonne

Sommaire du no 16 (janvier-mars 1965)

G. NICOLAS. Problèmes de technique comptable agricole.

J. MAHO. Modernisation technique en milieu rural.

P. COUTIN. Les études préparatoires à l'aménagement du territoire.

B. CHEVALLIER. Bailleurs et preneurs en Touraine, après la Guerre de Cent Ans.

J. BERTIN. Les conventions de formes dans le système graphique de signes.

B. KAYSER. Les résultats de la planification agricole en Bulgarie.

Chronique scientifique

Comptes rendus

Abonnements—4 numéros

France et pays de la zone franc: 33 F. Autre pays: 40 F. Le numéro: 9 F.

Les abonnements peuvent être souscrits auprès de votre libraire habituel ou aux Editions
MOUTON et Cie, s.a.r.l., 45 rue de Lille, Paris 7ème. C.C.P. Paris 5067-96

REDACTION: 20, RUE DE LA BAUME, PARIS 8EME

ECOLOGY of SOIL-BORNE PLANT PATHOGENS

Kenneth F. Baker
William C. Snyder

Prelude to Biological Control

Illustrated

105s. net

JOHN MURRAY

A symposium planned to give a comprehensive survey of current knowledge and possible developments of biological rather than chemical means of controlling root diseases.

Thorough analyses have been made of the biology of the soil micro-organisms, both flora and fauna, and of the influences of chemical and physical features of the soil environment upon their behaviour. The plant root and its pathogenesis and resistance of roots to pathogens in the soil have been dealt with in detail, as have evaluations of the mechanisms of antagonisms, fungistasis, and parasitism. Interactions between soil, micro-organisms, and plant roots have been studied to discover the factors which govern pathogenesis and might be manipulated in favour of the plant.

It also brings together the facts and the philosophies of world authorities in the various disciplines which impinge on the subject.

JOURNAL OF AGRICULTURAL ECONOMICS

Vol. XVI, No. 3

JUNE 1965

CONTENTS

Some Features of Farm Business Structures	ALAN HARRISON
Recent Developments in Meat Marketing	W. S. BOLITHO
Group Marketing	P. R. DODDS
A Study in the Demand for Fatstock	J. DIXON
The Amalgamation of Agricultural Holdings: A Study of Two Parishes in Western Aberdeenshire	G. A. URQUHART
Supply Responses in Grain Production in England and Wales, 1925-63	BRIAN HILL
With Reviews, Abstracts, etc.	

Journal of THE AGRICULTURAL ECONOMICS SOCIETY

Published twice yearly, price 21s.

EDITOR: O. J. Beilby, Department of Agriculture and Fisheries for Scotland,
St Andrew's House, Edinburgh 1, Scotland.

SECRETARY: Dr T. W. Gardner, Department of Agricultural Economics, The Uni-
versity, Manchester 13.

MEMBERSHIP: £2 10s. per annum.

DIGEST OF AGRICULTURAL ECONOMICS AND MARKETING

published by

THE INSTITUTE FOR RESEARCH IN AGRICULTURAL ECONOMICS
UNIVERSITY OF OXFORD

This quarterly journal provides abstracts, including summary tables where relevant, of all significant British publications in agricultural economics and of important items from abroad, together with occasional review articles and select bibliographies.

Sections are devoted to Agricultural Policy, Supply of and Demand for Agricultural Products, Marketing, Research Methods and Techniques, Land, Labour and Capital, and Farm Organization and Management.

The July issue includes: *Marketing Beef by Specification*, D. D. Charles, R. M. Butterfield, and J. Francis; *Investment Analysis for Farm Improvement*, J. T. Ward; *Some Notes on the Adoption of Farm Practices*, H. T. E. Smith; *Capital in Scottish Agriculture*, I. M. T. Stewart; *Agricultural Output in Scotland by Regions—1961-2*, A. M. Mackenzie; *Bibliography on the Analysis and Projection of Demand and Production*, F. A. O.

Annual Subscription: 31s. 6d. post free

The British Agricultural History Society

PRESIDENT: R. V. LENNARD

TREASURER: C. A. JEWELL

EDITOR: JOAN THIRSK

SECRETARY: T. W. FLETCHER

ACTING SECRETARY: MICHAEL HAVINDEN

Department of Economic History, Exeter University, Exeter, Devon

Executive Committee: W. H. Chaloner (*Chairman*), Miss Audrey Beecham, G. B. Bisset, A. M. Everitt, G. E. Fussell, J. W. Y. Higgs, W. E. Minchinton, George Ordish, Miss L. Pearson, M. L. Ryder, Miss E. H. Whetham.

The Society aims at encouraging the study of the history of every aspect of the countryside by holding conferences and courses and by publishing *The Agricultural History Review*. Its constitution is printed in Vol. IX of this *Review*, p. 63.

Membership is open to all who are interested in the subject and the subscription is ONE GUINEA due on 1 February in each year. Details may be obtained from the Secretary.

The Agricultural History Review

EDITOR: JOAN THIRSK

45 MEADWAY, LONDON, N.W. 11

The Review is published twice yearly by the British Agricultural History Society and issued to all members. Single copies may be purchased from the Secretary for 17s. 6d. Articles and letters offered for publication should be sent to the Editor. The Society does not accept responsibility for the opinions expressed by contributors, or for the accidental loss of manuscripts, or for their return if they are not accompanied by a stamped addressed envelope.

☛ Communications respecting subscriptions should be ☛
addressed to the Treasurer, not the Editor.

THE BRITISH AGRICULTURAL HISTORY SOCIETY

*

IMPORTANT NOTICE

The Acting Secretary of the Society,
to whom all secretarial correspondence should be addressed,
is

MICHAEL HAVINDEN
DEPARTMENT OF ECONOMIC HISTORY
EXETER UNIVERSITY
EXETER, DEVON

