For years it has been difficult to provide students with adequate accounts of agrarian changes between 1500 and 1750. Changes in landownership in this period, and the relative fortunes of the various agrarian classes, have periodically been subjected to intense scrutiny, as for example in the years before 1914 when the famous studies of Slater, Hasbach, Johnson and Tawney appeared, and of course in the wake of the gentry controversy of recent years. But when we come down to more mundane matters, like the organization of farming, crops and cropping, probable yields and the like, we find that the sixteenth and seventeenth centuries have been comparatively neglected. In some ways we know more about medieval agriculture than we do about that of the early modern period, and certainly it has always been difficult to relate meaningfully the situation in the Tudor-Stuart period with that of those better documented and more intensively studied years after 1750.

The past year, however, has seen the publication of two massive studies, overlapping in period and to some extent in content, and between them covering the years from the beginning of the sixteenth to the mid-eighteenth century. One, running to over 900 pages, is a team effort, edited by Joan Thirsk; the other is a remarkable one man affair, over 400 pages in length, written by one of the most conspicuous absentees from Dr. Thirsk’s well chosen team, Dr. Eric Kerridge. Both works represent the fruit of many years of devoted labour; both will be welcomed by teachers of economic and social history, if not, because of their length, by all undergraduates.

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times onwards. It was decided that each volume should have its own editor; the fourth volume, covering the period 1500 to 1640, was entrusted to Dr. Thirsk, and this is the first of the series to appear. It must be said at once that it is a splendid compendium of old and new knowledge, the sort of work that could only be produced by the long labours of a dozen devoted scholars. Like its virtues, however, its defects spring largely from the chosen format. It would be interesting to have reproduced the discussions which shaped the series as a whole. The decision to divide by time-periods was probably ineluctable, given the nature of the historian's problems. Nor does one want to quarrel with the choice of this particular volume's date limits, though they look arbitrary. Greater objections can perhaps be levelled against the decision to allow each editor to follow his own chosen path. The reasons for this decision are not given, but were probably simplicity, allied to the difficulties of establishing a framework suitable for such an enormously long period of time. The dangers, however, are also considerable. They are that editors will chase themes of traditional importance in the historiography of their own period, irrespective to some extent of their importance in the long-run evolution of the social and economic structure of rural society. In this, as in other ways, final judgement on the volume must be suspended until others in the series have made their appearance. The usefulness of any one volume, for example, will be enormously enhanced by the extent to which it marries with preceding and succeeding volumes, by the extent to which it enables us through comparative exercises to deepen our understanding of the forces making for change. The experience of the Cambridge Modern History and the Cambridge Economic History of Europe does not breed confidence in these respects, though the narrower scope of the study ought to make unity a more feasible proposition. The writing of history, however, is still perceived as an essentially individual task; historians have been extremely reluctant to submit themselves to the onerous demands of true co-operative endeavour. History is the last great refuge of classical private enterprise. Ideally the contents of a volume such as this ought to be planned by more than one of the editors; the contributors to the volume ought to meet together regularly to discuss their common problems; they ought, at the very least, to be able to read each other's contributions. One wonders how much of this actually occurred. Without it, too much responsibility
falls upon the editor; he has to decide what is significant in terms of long-run evolution, wring unity out of diversity, check for contradictions, and so on. Even as gifted and diligent an editor as Dr. Thirsk has evidently found this task somewhat beyond her. So we have nine hundred pages of detailed analysis without a preceding or concluding summary or overview; some, though not many, unresolved contradictions; and references to already published works where cross references in the same volume would be much more appropriate. To cite one example of the latter, we have the frequent references by contributors to the writings on prices of Mr. Y. S. Brenner, a non-contributor, when nearly 150 pages of the volume is taken up by Dr. Bowden's splendid work on this subject. This co-operative enterprise is more redolent of the regulated than the joint-stock company; each author trades on his own account.

We may all have ideas as to what "a complete social and economic history of rural England and Wales" ought to contain. Readers of this journal will be interested to know whether it supplies, for example, an explicit account of the social structure of England, or even rural England, along the lines currently being explored by Professor L. Stone, Dr. F. M. L. Thompson and Mr. J. P. Cooper, or Mr. Peter Laslett. 2 Certainly an enterprise such as this ought to contain a clear statement about the changing size of population, its regional and urban-rural distribution, the determination and distribution of classes, their ownership of real property, rules and customs of inheritance, the size and structure of families, and so on. Valuable information is certainly provided about nearly all these things, but except for Dr. Everitt's splendid study of the agricultural labourer they are rarely the object of study, as perhaps ideally they ought to be. The information which is yielded tends to be incidental to other ends.

These ends tend on the whole to be the traditional ones of the economic-agrarian historian. The principal one appears to be analysis of the economic unit, the farm; and the work endeavours to analyse farms by type, size, and their regional bunching into systems. A second aim is to provide some account of the experiences of these systems: the

pressures, including market pressures, to which they were subjected; the behaviour of costs, prices and profits; and technological adaptation. A third aim is to describe the economic experiences of some classes in the rural community — two hundred pages are devoted to landlords and labourers, about ten times the attention received by the majority class, the tenants. Finally, we have accounts of one of the more durable artefacts of these diverse experiences in descriptions of rural housing in England and Wales.

As might be expected discussions of all these questions produce information of great interest to social historians, even though the social structure is treated more as a causal factor influencing economic arrangements than a specific object of study. Too few contributors consider the interrelationships between economic and social structure on anything other than a one-way basis. One of the exceptions is the volume’s editor, who in her chapter “The Farming Regions of England” reveals a keen eye for such matters. Her analysis must lead to the interment of many old-fashioned notions, such as that “England was composed largely of nucleated villages, populated by corn-and-stock peasants, who farmed their land in common fields and pastures” (p. 1). Foreigners, she points out in her perceptive Introduction, “saw more green than gold”; they thought of England as a country of “woodland and pasture, parks and chases” (pp. xxix-xxxvii). She modifies also the division of the country into a highland zone, essentially pastoral, and a lowland zone, essentially arable. A rather better division is that between wood-pasture zones, orientated basically towards animal farming, and mixed-farming regions, where grass and animals were a necessary adjunct to arable activities. Although most of the former lay in the highland zone, and most of the latter lay in the lowlands, so that the traditional geographical dichotomy still has some meaning, this new division allows for the enclaves of wood-pasture which lay sometimes in the heart of lowland England and mixed-farming regions, and vice versa. The highland and wood-pasture zones were essentially pastoral; their settlement patterns were characterized by scattered isolated farmsteads and small hamlets; there was little farming in common, except occasional common grazing; they were almost completely enclosed before 1500, or underwent subsequent enclosure relatively painlessly. These zones were characterized by partible inheritance; and it was here also that domestic industries were frequently located.
The mixed-farming regions tended by contrast to be characterized by nucleated villages and hamlets, and contained the more developed common-field and grazing systems; they were the more highly manorialized communities, and tended to practice primogeniture rather than partible inheritance; it was in these regions that enclosure was to cause social conflict; and these areas rarely contained well developed domestic industries. The contrasts are clearly drawn, and the reasons for them skilfully hinted at (pp. 1-14). A detailed but lucid region by region analysis follows, and the whole chapter should prove of immense value not only to students of the early modern period but to medievalists and modernists alike. Frank Emery’s chapter on “The Farming Regions of Wales” does a similar service, with well chosen maps and diagrams, for that often neglected country. Dr. Thirsk’s chapter on “Farming Techniques” is complementary to the regional studies. It is a clear comprehensive discussion of the principal crops and the great variety of cropping systems, and of animal husbandry, which, although it contains few surprises, should help to dispel more old myths, such as, to pick out only one example, that a regular slaughter of cattle took place at Michaelmas. On the whole, however, this part of the work is overshadowed by Dr. Kerridge’s vigorously argued thesis in *The Agricultural Revolution*. Dr. Thirsk’s chapter on “Enclosing and Engrossing” is easily the best discussion of these subjects now available, though it is a pity that more use was not made of Dr. Bowden’s new price series, or his interesting conjectures on relative price movements, to explain the ebb and flow both of interest in animal husbandry and government opposition to enclosure. The concentration of opposition upon the Midlands is explained by “large populations and land shortage”. Here “it was difficult to enclose and engross land... without injuring the community and arousing hostility” (p. 248).

The long chapter on “Landlords in England”, written by Mr. Gordon Batho and Dr. Joyce Youings, is variable in quality and interest, although both authors deserve credit for gathering together a great deal of information previously scattered throughout numerous books and theses. They are however, at the mercy of their materials. The Crown estate, the largest single landholding, has been shamefully neglected by historians and Mr. Batho’s rather sketchy treatment of this subject serves principally to emphasise this neglect. The revenue figures printed here, for example,
are practically worthless. His treatment of "Noblemen, Gentlemen, and Yeomen" is much superior, partly because of the abundant materials produced by the gentry and allied controversies. As far as the first two groups are concerned his summary appears to bear out the view that the situation was one where individuals and families rose and fell within and between classes rather than one where one class gained ground at the expense of another. The Yeomanry, however, "advancing as a class both absolutely and relatively" supply an exception (p. 305). Case histories are liberally used — perhaps too liberally. Dr. Youings is also at the mercy of her sources, and her survey of the Church as a landlord is grossly overweighted in favour of the monasteries: the estates of the bishops and clergy receive two pages, the monasteries fifty. Her account of the monasteries as landlords between 1500 and the 1530's is useful, as also is her survey of the subsequent disposal of the monastic estate. Professor Glanmor Williams provides a capable and balanced survey of the Church as landlord in Wales, while the late Professor T. Jones Pierce provides an account of the Welsh social structure which will confirm in English minds the wisdom of their neglect.

Dr. Alan Everitt's chapter on "Farm Labourers" assembles more information on this subject than many would have thought possible. Labourers constituted, he thinks, somewhere between one quarter and a third of the entire rural population in Tudor times, though the actual proportion varied regionally. Their numbers tended to expand as the period progressed, especially in the wood-pasture zones where disproportionately rapid growth was induced partly by population growth and partible inheritance among small peasants and partly by immigration into these areas where domestic and new industrial employments, and free commons, offered some chance of a livelihood. His study is clearly complementary to Dr. Thirsk's. His analysis of labourers' inventories is particularly illuminating, and owes much to the pioneering work of Professor W. G. Hoskins in this type of source material. It must be remembered, however, that only the upper crust of labourers had sufficient property to leave inventories. It is clear that amongst those who did, their small livestock holdings, generally one or two cattle, or, more rarely, a couple of sheep, were far more important than their arable holdings. "The great majority of labourers," we are told repeatedly, "purchased their grain requirements [principally barley] in the local market town
week by week, or from the travelling badgers and mealmen who frequented the country districts" (p. 418). Nor were all labourers wholly dependent on agriculture; nearly two thirds of those leaving inventories took up some kind of by-employment. "Woollen industries," we are told, "probably occupied the spare hours of at least one quarter of the cottage-farming population in England as a whole, and nearly half of that in the Midlands" (p. 425). In wooded areas, moreover, one peasant labourer in three was engaged in some kind of woodcraft. Canadians will not need reminding that "Forest areas were the natural workshops of an agrarian civilization largely dependent on wooden tools and implements for its work", and for its fuel (pp. 427-8). Here also were located the expanding potting, tiling, nailing, coaling and iron smelting industries. It is little wonder, therefore, that they were the magnets for immigrants from fielden areas. Nevertheless, by-employments, like small-holdings, benefited only a minority of the whole labouring population. The majority were dependent, and became increasingly dependent, on their work as agricultural wage labourers. Here also Dr. Everitt has interesting things to say, as he goes on to discuss the labourer's work schedule, his rates of pay, and his relationship with his master. He deals also with his diet, furniture and clothing. Nor are the dynamics neglected. He argues that as the mid-seventeenth century approached the labouring class became increasingly differentiated within itself and revealed cleavages in its ranks. It is difficult to do justice to the variety of interest of this contribution. Dr. Everitt has certainly succeeded in putting flesh on the bones of the English labourer, although the very poor, untouched by testamentary inventories, remain rather emaciated.

Dr. Everitt's chapter on "The Marketing of Agricultural Produce" is no less absorbing. It is a magnificent survey of markets and marketing which provides an enormous amount of new and interesting material. The sources of increasing demand are judiciously analysed, as also are market forces making for increased specialization. As for the former, the absolute increase in the nation's population (c. 1½ million) was clearly more important than London's population increment (c. 200,000), and too little attention, it is argued, has been paid to the provincial towns. London clearly played an important part, however, in promoting specialization within agriculture and marketing, as also did exports and the provisioning of the royal household and armed services. Increasing local
demands tended to be met by local town markets, and Dr. Everitt’s survey of these markets is particularly interesting; there were many of them, though less than in the thirteenth century, and a large number, more than 300 out of about 800, tended to specialize in some particular product. Attempts are made to assess catchment areas. Despite an expansion of such market facilities, much of the increasing trade in agricultural produce was accommodated by the growth in private (as distinct from open) marketing via annual fairs or private trading in inns and farm-houses. It was in this area of activity that London, exports, purveyance etc., made a significant contribution, though again Dr. Everitt stresses that regional and provincial demands, stemming from increasing regional specialization and interdependence, played the most important part.

Dr. Peter Bowden’s long chapter on “Agricultural Prices, Farm Profits, and Rents” and the numerous price tables printed as an appendix are equally welcome. He discusses the general rise of agricultural prices in the period 1500-1640, and rightly lays most of the blame for this on real rather than monetary factors — on the growth of population and the backwardness of agriculture, rather than on debasements of the coinage and Spanish-American silver. The analysis takes in the reasons why some agricultural prices rose more than others and why the inflation came gradually to an end in the early Stuart period. His survey of seasonal and annual fluctuations, and of cycles and trends, provides a host of insights and observations which are sure to provoke debate and further research, particularly the unsupported speculation about ten year weather and population cycles. Were exceptionally bad harvests all that regular? “Whatever we may think of Jevon’s sunspot theory”, Dr. Bowden argues, “it does appear that good harvests and bad harvests tended to cluster together, and that at fairly regular intervals — e.g. 1551, 1562, 1573, 1586, 1597, 1608 — exceptionally bad harvests occurred as a result of deterioration in weather conditions” (p. 634). The first part of the statement is unexceptionable, the second less so because some of these harvests were not “exceptionally bad” and the choice neglects those bad years that came in the interim periods. 1555 and 1556 were years of dearth, two of the worst harvests of the sixteenth century; the 1560 and 1565 harvests were bad; 1594 and 1595 were bad years, though not as bad as 1596,
which, in turn, was certainly worse than 1597. The section on “Expenditure and Income” breaks interesting new ground by attempting to build models to illustrate the relative profitability of large and small farms, and of pasture and arable activities. On all counts the large farmer was in an advantageous position.

The work ends with a survey of rural housing, from the meanest to the grandest scale, ably conducted by Mr. Maurice Barley and Mr. Peter Smith.

Eric Kerridge’s *The Agricultural Revolution* is concerned primarily with the changing nature of farm systems and their productive efficiency from the sixteenth to the early eighteenth centuries. Like *The Agrarian History of England and Wales* it contains also a masterly survey of the main agricultural regions. The whole work naturally, therefore, has most in common with that part of the *Agrarian History* written by Dr. Thirsk herself and to a lesser extent by Dr. Bowden. It involved an astonishing amount of documentary research, as the abundant footnotes clearly indicate, and this combined with the author’s acknowledged mastery of Tudor-Stuart farming should ensure that this book be not neglected. The work argues that English agriculture underwent a revolution, a transformation of production functions leading to marked improvements in productivity, in the sixteenth and seventeenth centuries. This improvement, he argues, was clearly apparent well before 1640, the point where Dr. Thirsk’s volume stops, and the point where most economic historians would argue that real improvement begins. The most marked difference in Dr. Thirsk’s and Dr. Kerridge’s treatment of the pre-1640 period, apart from the weight they would attach to the extent of the practice of convertible husbandry, lies in their approaches to the problem of yields and productivity. Dr. Thirsk rightly says that “It is impossible to say how far yields per acre were raised during this period”; although there were improvements which may have raised yields, most of the increase in production appears to have been achieved by “the impressive increase in the total acreage of land under the plough” (p. 199). Dr. Bowden, after being suitably circumspect, argues that there was some increase in yields, especially towards the end of the period, but “The increase in the country’s agricultural output in the two centuries before

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1650 . . . probably owed less to improvements in productivity than to extensions in the cultivated area” (pp. 606, 651-2). Dr. Kerridge thinks that there was not only an increase in the area cultivated but also a marked improvement in productivity. His confident assertions about the magnitude of yield increases lie at the heart of his thesis. The thesis is that the “agricultural revolution” came in the sixteenth and seventeenth centuries rather than in the hundred years following the mid-eighteenth century. “We make no bones about asserting”, he argues, “that the agricultural revolution dominated the period between 1560 and 1767 and that all its main achievements fell before 1720, most of them before 1673, and many of them much earlier still” (p. 328). At another point he argues “the great spurt in production between 1540 and 1700 was quite unmatched in the years from 1750 to 1880” (p. 336). The reason for the lack of response in the latter period was that “no major innovation was possible, and little room remained for further improvement, for the simple reason that all the opportunities for such had previously been exhausted” (p. 338).

Proving the thesis involves, among other things, a trenchant examination of the salient features of the conventional agricultural revolution of the eighteenth century, one that is sure to provoke historians of the latter. “Thus, of the conventional criteria of the agricultural revolution”, he concludes, “the spread of the Norfolk four-course system belongs to the realms of mythology; the supersession of oxen by horses is hardly better; the enclosure of common fields by Act of Parliament, a broken yardstick; the improvement of implements, inconsiderable and inconclusive; the replacement of bare fallows, unrealistic; developments in stock-breeding, over-rated, and drainage alone seems a valid criterion” (p. 39). The passage is typical of Dr. Kerridge’s swashbuckling approach. After a long and detailed examination of the principal agricultural regions he moves to a detailed examination of the more important achievements of the early modern period: the spread of ley farming, or convertible husbandry, which he refers to as “up-and-down husbandry”; the floating of water meadows; the introduction of new fallow crops and selected grasses; and achievements in marsh and fen drainage, manuring, and stock breeding. Dr. Kerridge has made very real and important contributions to our knowledge of developments in all these fields. No one can deny that important improvements were effected in English farming, particularly
in the seventeenth century. Where one must differ, however, is in the weight and significance he attaches to these changes, and this is largely the outcome of ill-considered comparisons of the performance of agriculture in the years 1540-1700 with those after 1750. The denigration of agriculture’s performance after 1750 does nothing to enhance his claims for its achievements in the period 1540-1700.

His comparison of the general economic performance of agriculture 1540 to 1700 with that of years 1750 to 1850 is full of errors and half truths. Between 1540 and 1700, he argues, population doubled, and agriculture was able to feed it, at standards which improved, and to provide raw materials for industry and also foodstuffs for export. In the years 1750 to 1850 population doubled; obviously it was fed, but at the expense of nutritional standards, and only then because food exports were replaced by food imports and because agricultural production was diverted from industrial and fodder crops to foodstuffs. The population of England and Wales may have doubled in the period 1540 to 1700, but between 1750 and 1850 it grew from about 6½ million to very nearly 18 million. In other words it very nearly tripled. The absolute figures are more important than the rate of increase. According to Dr. Kerridge’s estimates English grain farmers in the earlier period fed some three million extra natives and, reckoning grain consumption at two quarters per head, about 300,000 foreigners via grain exports. Comparing 1850 with 1750, however, there were over eleven million extra natives to be fed, and grain imports, using the same consumption rate as for the earlier period, were perhaps feeding three to four million people. On this basis, therefore, English agriculture was feeding an extra seven million — more than twice the extra numbers fed in the earlier period. Although there was some decline in per capita grain requirements, consequent upon the rising consumption of potatoes etc., it is difficult to believe that these requirements fell by a half, and a fall of this magnitude would be required for the increase in food-grain production in the period 1750-1850 to be less than that of the period 1540-1700. At the same time, of course, industrial demands for farm products were increasing. There was certainly no decline in the flow of such products from farm to brewer or distiller, mill or factory. The production of malt and hops, and beer and spirits, for example, was higher in the mid-nineteenth century, in some cases much higher, than it had been in the mid-eighteenth century. Whatever
Dr. Kerridge means by saying that "imported tea, coffee, cocoa and sugar had largely been substituted for home-grown malt and hops" (p. 336), it should not be used to buttress the argument that English production of drink corn actually fell. Commercial starch production also may have doubled between the mid-eighteenth century and the 1820's. The industrial use of animal products also expanded considerably. The production of tallow candles triples between the mid-eighteenth century and the 1820's; the increase in soap output in the century after 1750 appears to have been enormous. Although industries, and the population at large, may have drawn increasingly on the products of foreign farms, this was because the demands being exercised were greater than anything experienced hitherto. Faced with this unprecedented increase in demand, English agriculture appears to have coped surprisingly well. Indeed, the evidence of price movements suggest that its response to such demand pressures was more capable than in the sixteenth and earlier seventeenth centuries.

Dr. Kerridge's treatment of the relationships between economic pressures, agricultural performance and agricultural prices leaves much to be desired. "Not the least of the fruits of agricultural innovations", he writes, "was the general and great prosperity reflected in rising prices, profits, wages and rents after the mid-1560's" (p. 344). What of the marked price rise before the 1560's, one wonders? Nor do rents and prices, as he asserts later, rise to a peak in the 1610's. More important is the neglect of the view, taken by Dr. Bowden and others, that the inflation of agricultural prices in the century before 1640 can be ascribed to the failure of agriculture to meet the demands of a population and economy growing at a rate well below that of the century after 1750. Certainly Kerridge's picture of cornucopia in the reign of the early Stuarts is difficult to reconcile with Bowden's view that "the third, fourth, and fifth decades of the seventeenth century witnessed extreme hardship in England, and were probably among the most terrible years through which the country has ever passed" (p. 621). Although new techniques were incorporated into English agriculture before 1640, their effect on the price level appears to have been comparatively slight. It was only in the following hundred years that the inflation was halted, and one wonders how much of this was due to a faster rate of innovation among farmers and how much to the failure of population to expand? Although new agricultural techniques frequently appear in periods of population
pressure, the incentive to employ them is often greater when that pressure is removed. Any fool of a farmer with a large enough output to market should have been able to make money in the sixteenth and early seventeenth centuries. When product prices subsequently stagnated, however, and costs rose rapidly, farmers had to innovate to survive. Also, in so far as the innovations of this period were designed to increase the output of animal products rather than grain, the price trends of the seventeenth century may have been more favourable to such changes than those of the sixteenth.

Both works have good bibliographies and indexes. The Agricultural Revolution has also a much needed glossary. Both works should be warmly welcomed. It would be a pity if Dr. Kerridge’s over-enthusiasm led to any neglect of his important book.